

FRAMEWORKS AS AN AID TO PROMOTING COOPERATION IN URBAN AGRICULTURE

Zodwa P. Ndlela

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Abstract

Cities, particularly in developing countries, are faced with the challenge of population increase aggravated by rural to urban migration. This has increased the level of unemployment since job creation does not keep up with the rate at which population influx to cities occurs. This leads to poverty that undermines the economy of the city. Urban agriculture (UA) has the potential to improve livelihoods of the urban poor people through contributing to food security and generating income. However, UA has generally not been practised successfully and in a sustainable manner, owing to the lack of resources (land and finance), farming skills, and inadequate support services from organizations. This study presupposes that the inadequacy of resources in support of UA strongly reflects the level of co-operation and co-ordination among those who are, or could support UA. It will also reflect the levels of commitment of a shared vision. It thus sets out to explore the prospects of organizational collaboration to support UA and uses the Greater Pietermaritzburg Area (PMB) as a focus for the study.

The local organizations in PMB were found to have frameworks through which they supported UA and other development projects. They were however found not to have any strategic plan, clear definition of organizations' roles, no common understanding of UA, nor a shared mission or vision of UA. As a result there was poor coordination and commitment to collaboration.

It appears that a successful collaboration requires most importantly, an acknowledgement of the complexity of collaboration and a clear understanding of its purpose among the collaborating partners. Also required is accepting the need for leadership, integration of ideas when planning and implementing, clarification of roles and accountability. To appreciate this, organizational and individual empowerment is needed. Empowerment could take three forms: objective (knowledge of collaborations' aim, objectives, and procedures),

subjective (assertiveness to undertake work involved), and competency (acquisition of skills to enhance ability to perform). The study believes these factors could help improve the performance of organizational frameworks in developing UA to a point that its full potential is realized. The findings emphasized the value of adopting a systems approach in organizing delivery of services in support of UA.

PREFACE

This dissertation was carried out as part of the requirements for the Masters of Environment and Development at the Centre for Environment and Development, University of Natal, Pietermaritzburg, South Africa. The research was conducted from September, 2000 to December, 2002 under the supervision of Professor C. Breen.

This dissertation is wholly the original work of the author and has not been submitted in any form for any degree or diploma to any university. Where use was made for the work of others, it is duly acknowledged in the text.

Signed

Zodwa P. Ndlela

Signed.....
31.08.03

Professor C. Breen

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LIST OF ABBREVIATIONS

AE	African Enterprise
ACAT	Africa Co-operative Action Trust
ARC	Agricultural Research Council
CERDES	Center for Rural Development Systems
CENGOPO	Center for Government and Policy Studies
DoA	Department of Agriculture
DoH	Department of Health
FSG	Farmers' Support Group
GEA	Greater Edendale Area
GPA	Greater Pietermaritzburg Area
GREEN	Greater Edendale Environmental Network
IDP	Integrated Development Plan
INR	Institute of Natural Resources
LDP	Local Development Plan
PMB	Pietermaritzburg
UA	Urban Agriculture
NGO	Non-Government Organization
IDT	Independent Development Trust

CHAPTER ONE

Introduction

1.1 Background

Of all the worldwide scourges that stunt human development, poverty is the most widespread. Fifty years after the Universal Declaration of Human Rights was adopted, one third of the developing world population is still denied adequate food, their most basic right because of poverty (UNDP, 1998). Statistics show that nearly 12 million children die each year before their fifth birthday and more than 800 million people go hungry (UNDP, 1998).

In an attempt to combat poverty, in 1997 at the World Summit for Social Development held in Copenhagen, 186 governments committed themselves to the resolution to eradicate poverty (UNDP, 1997). This mission was revived at the Millennium Assembly 2000, and it was declared that by 2015, the proportion of people living on less than one dollar a day would be cut by 50% (Asadi, 2001). However, it is disappointing to note that millions of people around the world are still poverty stricken and starving (Shortt, 2001). The prospects for all countries to achieve the agreed poverty reduction targets and other development goals by 2015 appear extremely bleak (Asadi, 2001). Most of the least developed countries, particularly in Africa, are of serious concern because the number of people living in poverty may increase (Asadi, 2001). Clearly, production of, and access to food are essential elements in strategies to alleviate this suffering.

1.2 Factors worsening poverty

Population

The increase in world population is one important factor that is worsening poverty. Due to scarcity of resources, many countries have not been able to sufficiently provide for their citizens' welfare or provide them with jobs. Many people migrate to live in cities with the hope that the city will offer better life

opportunities. In other regions, such as North America, Latin America and Europe more than three-quarters of the people live in cities, while in Asia and Africa it is slightly more than one-third (FAO, 1997). The growth of the countries economies does not keep pace with population expansion. Thus the rapid urbanization has resulted in a large population of poor urban people. The World Bank estimated that the 1990's would witness an increase from 400 million to one billion urban people living in absolute poverty (UNDP, 1998).

HIV/AIDS

Among other factors, the AIDS epidemic has been one of the major contributors in elevating the incidence of poverty in the world. The UNDP (1998) estimated that around 30 million people worldwide were infected with the AIDS virus, and more than 90% of these people are in developing countries. It strikes people in the prime of their working lives (UNDP, 1998). It has caused loss of jobs and deaths, which have resulted in poverty and an increased number of orphans. AIDS orphans are left in the care of relatives who themselves are sometimes poor, or else they are left with their siblings who are normally young and helpless. These children's opportunities of accessing education and a better life in future are shattered early in their lives. With the high incidences of deaths due to AIDS - related diseases, the population of orphaned children is obviously going to be very high. It also means that more people are still going to be poor and hungry.

1.3 Impact of urbanization

Migration of people from rural to urban areas is one of the causes of the rapid urbanization. It has also greatly increased the unemployment levels in cities. In 1995, the unemployment level in South Africa was 29% and 33% in KwaZulu-Natal (Integrated Development Plan [IDP], 1998). Mougéot (2000) observed that in the next 20 years, urbanization will intensify in Latin America and the Caribbean, but Africa and Asia will witness the most explosive growth. Moreover,

countries that are urbanizing most rapidly are also among the least well prepared to satisfy their food needs, and many already depend precariously on food aid (Mougeot, 2000).

Attempts to overcome poverty

Despite the crumbling economies all around the world due to multiple factors including the population explosion and AIDS, urban authorities have a task of developing sustainable cities. This requires policy reforms that will favour the poor without compromising the cities' standards of administration. To achieve this, political and administrative institutions have to be transparent and participatory (UNDP, 1998). The poor have to see clearly what is happening to enhance their participation and influence in decision-making. As a response to the poverty crisis, programmes to fight this scourge have been put in place, and Food Security is one of the programmes (White Paper, 1999).

The South African government has introduced a food security programme within its departments of Agriculture and Health (Ndabezitha, *pers. comm.*). Urban agriculture (UA) is one of the issues that are pursued through the food security programme. It is an act of engaging in agricultural activities within urban confines. It is integral to city life and also a vibrant part of urban economic and ecological systems (Mougeot, 2000). In recognition of the role of UA, the World Food Summit (1996) concluded that food and nutrition policies should among others, include a component for enhancing UA production. The UNDP (1997) estimates that 800 million people are engaged in UA worldwide.

Some people in Pietermaritzburg particularly in the Greater Edendale Area, are practising UA. Ghebremicael (2000) observed that UA has a great potential to improve the living standards of the urban poor through providing a source of cheap food and generating income. However, the farmers are faced with problems associated with lack of resources (lack of land and capital) and

extension services. Due to the lack of resources, Ghebremicael (2000) reported there hasn't been much progress in UA. The intention of this study is to establish the need for and possibility of developing an organizational framework to provide support services towards the development of urban agriculture (UA).

1.4 The scope of the study

Urban Agriculture is considered to have great potential to uplift the livelihoods of poor urban people in Pietermaritzburg (Ghebremicael, 2000) but a lack of resources is considered to have stalled development of UA. With the escalating prices of food and services, worsened by the scarcity of jobs, there is a growing need for producing food in cities (Mougoet 2000). The need for an organizational framework to support UA in Pietermaritzburg comes into focus after it was realized that there are organizations offering services towards UA, but farmers are still struggling to set up successful projects of this nature. Lack of co-ordination within these organizations is suspected to be one of the major causes of this problem. Perception of need and desirability for UA by the local organizations, as well as the farmers, is thought to have influence in this regard.

1.5 The structure of the dissertation

This chapter has introduced the field of research. Chapter two presents the literature review, from which the conceptual framework for the study is constructed and the research objectives are derived. Chapter three describes the study area, and chapter four presents the research methodology. Chapter five presents and describes the results. Finally chapter six discusses findings of the study based on the literature reviewed and the results from the field and draws conclusions.

CHAPTER TWO

Literature Review

2.0 Introduction

This chapter reviews literature and develops a conceptual framework to direct this research. The literature review examines the organizations and the role they could play in the development of urban agriculture (UA), particularly in Pietermaritzburg.

2.1 Urbanization and need

One of the greatest challenges of the next decade facing mankind is the growing population and increasing urbanization (Jacobi *et al.* 2000). The world's current population of 6 billion is equally shared between cities and rural areas, with urban areas expected to surpass rural areas in population around the year 2005 (FAO, 1998). In 1994, statistics revealed that the fastest population growth is in the large cities of the developing countries. Latin America was found to have the largest proportion of urban dwellers followed by Africa and Asia. The annual rate of urban growth was 4.4% and 3.7% in Africa and Asia, respectively (Nugent, 1997). With the steady stream of people migrating from rural to urban areas, urban population is expected to continue rising.

Migration from rural to urban environments includes migration flows of both national and international composition. The flow of populations to urban environments often involves crossing of international boundaries (Gushulak, 1999). The arrival destination of immigrants is normally an urban area, since they assume there are high possibilities of getting jobs in the city. South Africa being a dominant member of the 14-member southern African Development Community (SADC) is not spared the consequences of urbanization. The relatively favourable economic position of South Africa has caused a population influx to its major cities. Apart from migration of local people from rural settings

to urban environments, scores of people from the neighbouring countries such as Swaziland, Lesotho, Mozambique, and other countries in Southern Africa, continuously trickle into South Africa's big cities. This has increased South Africa's urban population and as a result, approximately 80% of the population lives in the four major industrial areas namely, Gauteng (the Pretoria, Witwatersrand, Vereeniging area), KwaZulu-Natal (Durban, Pinetown, Pietermaritzburg area), the Western Cape (Cape Town and surrounding areas), and the Eastern Cape, which includes the cities of Port Elizabeth and East London (Naude and Krugell, 2002).

The factors contributing to the rural-urban migration of people within and across national boundaries are normally economic or politically related Gushulak (1999). People move to cities because they want to escape poverty and the adverse conditions that are prevalent in rural areas. Another major contributing cause is the changing social relations especially between gender, and the improved access to information. This has seen large numbers of young men and women migrate to seek greater financial and social independence (Tacoli, 2000). Hence, the primary causes of rural to urban migration include: expectation of employment, low physical or legal barriers to migration, the availability of better services and the amenities of urban areas (education and living condition) and a deteriorating quality of rural life. However, employment opportunities are very limited especially for people who are less or uneducated. The immigrants experience social and economic marginalization because their lack of skills and education limits their employability and earning power, which further compromises their living standards and access to services (Gushulak, 1999).

Apart from population expansion in cities, other factors contributing to the decline of world economies (especially developing countries) are Structural Adjustment Programmes (SAPs) and the liberalization of free trade. The impact of SAPs and free trade is described as a "worsened condition" for the urban poor

since it leads to increased basic commodity prices, it devalues currencies which increases basic import prices and it cuts food subsidies for urban consumers (Jacobi, 2000 and Nugent, 1997). The instability of economies coupled with population growth in cities is manifested in compounded problems that put pressure on natural resources. Resulting problems comprise poverty, unemployment, lack of services and adequate housing, food insecurity, inadequate waste recycling, and degradation of the urban microclimate and environment (ETC, 2000).

2.2 Responses to need

Urban agriculture

In response to the increasing population of world cities and declining economies, Urban Agriculture (UA) is growing rapidly in many parts of the world especially in Asia and Europe (Nugent, 1997). Urban Agriculture is defined (Gundell & Butterworth, 2000:3) as "small areas such as vacant plots (open spaces), balconies, gardens, and containers within the city for growing crops and raising small livestock or milk cows for own consumption and/ or sale in neighbouring markets". UA has a tremendous potential to improve the livelihoods of the urban poor and to make an important contribution to food security in developing countries (Gundell & Butterworth, 2000). It reduces the problems of unemployment, food insecurity, and poor nutrition, which subsequently lead to poor health. Nugent (1997:1) claims "city farming provides sustenance to city dwellers and brings the product closer to the market". In addition, in the third world countries as well as in Central and Eastern Europe, UA is rapidly growing as a response to the decline in the economy and the introduction of open market/free trade principles (ETC, 2000). Urban farmers produce fresh supplies of perishable foods to a huge nearby market. It also gives such farmers, many of whom are women, an opportunity to improve their families' diets directly by growing nutrient-rich fresh foods (Nugent, 1997).

The creation of sustainable cities and the identification of ways to provide food, shelter and basic services to city residents are challenges to many city authorities around the world (Jacobi *et al.* 2000). However the essential problem that should be tackled along with food production in urban environments, is access to food production requirements such as land, water, capital and training. Hungry populations, urban and rural alike, must have access to food and the means of growing it (UNCHS, 1996). In this regard, the South African city authorities are also compelled by this situation to act strategically in creating support and economic activities, such as UA, that help alleviate the problems associated with population growth. In Pietermaritzburg for instance, people have embarked on vegetable production and poultry projects. These projects are undertaken by mainly people from the black townships and peri-urban areas (outskirts of PMB) such as the Greater Edendale Area. Ghebremicael, (2000) in a study of social and economic impact analysis of UA in the Greater Edendale Area (GEA) of Pietermaritzburg, revealed that the urban farmers here are faced with problems of insufficient land, financial and technical support. Besides the lack of these resources, they have poor farming skills, no entrepreneurial skills and are equipped with poor education, all of which limit their chances of getting well paying jobs. Ghebremicael's (2000) findings suggest that although UA has the potential to provide food security and general upliftment of people's lives in this area, presently it is not practised on a sustainable basis. In practice, this means local people should have access to organizations capable of delivering these inputs and services in support of UA.

Institutions and organizations

In a sociological perspective, institutions are defined as being a relatively stable configuration of values, norms, statutes, roles, and groups that provide a structure for patterning human behavior to meet the social and economic needs that exist in a particular area of activity (Norman and Marx, 1978). A number of assumptions could be made from this definition. For instance, it may be assumed

that institutions could be a set of rules, legislation, a group of people such as family, associations, or organizations existing in a society with a predetermined goal. This implies that institutions may differ in their ways of operation, but in principle they are similar. Their differences may be influenced by their social and economic goals.

Conversely, an organization is a group that has a structured interaction pattern, and the people in it share a sense of common membership. It is set up with the purpose of pursuing certain goals (Uphoff, 1986). Seemingly, there is an association between organizations and institutions. Dimbi (1998:27) observed that, "the terms organizations and institutions are commonly used interchangeably". To explain this association, Uphoff (1986) observed that an organization is institutionalized if it has gained the status of legitimacy for meeting people's needs.

For clarity and uniformity, all the establishments that are involved in this research, will be referred to as organizations. This is in accordance with Uphoff's explanation of the link between organizations and institutions. These establishments have a mandate to serve the public. The organizations the study focused on will comprise government departments, private organizations, non-governmental organizations (NGOs), community-based organizations (CBOs), farmers' co-operatives and local governments.

Organizations exist to benefit and promote the well being of local people in a society. They are set up to pursue goals associated with identified needs. Therefore, legitimate organizations have to be developed and adapted from time to time to meet the needs and aspirations of the people they serve (der Villiers *et al.* 1998). Food is one of the most basic requirements that should be provided by the existing organizations in a society. It is also a prerequisite for attaining the desired goals and, since it is quantifiable, it serves as a convenient measure

of progress (FAO, 1997). The goal of any development process is to ensure to every individual a decent standard of living.

In this regard, organizations are accountable to a particular membership. The members could be comprised of local government units, co-operatives, interest groups and political organizations (Esman and Uphoff, 1984). These organizations could use established procedures to facilitate communication and co-operation between the national centres (government) and the local communities. The local government could work together with local organizations to provide a framework of policies on issues such as access to land and other requisites of urban farming.

Organizational framework as a response to need

'Organizational framework' refers to a predetermined operating system involving a multisectoral organization with the intention of achieving certain goals (Cusworth and Franks, 1999). With the realization that development programmes often do not succeed in achieving their targeted aims, as evidenced by the escalating poverty in third world countries despite the attempts made to combat it, organizational frameworks are viewed as a solution (UNDP, 1998). This illustrates that the UNDP also appreciates the role of organizational frameworks in ensuring food security, combating poverty, and the promotion of the development of human and natural resources. The UNDP further recommends that governments include in their policies, in collaboration with all civil society actors, the promotion of political, economic and administrative decentralization.

This rationale for international level co-operation also applies at national and local level. In essence, organizational frameworks are critical to ensure co-operation among relevant actors at different levels of development work. Development work, especially in developing countries, has for a long time felt the impact of both lack of and inefficient organizational frameworks. Despite

sound policies in place, sometimes they are not translated into action. Inefficiency and lack of adequate organizational frameworks have been noted as a common concern (FAO, 1997). This is partly confirmed by the attention given to institutional reform in developing countries as part of development programmes (Brinkerhoff and Goldsmith, 1990). Support for organizational frameworks has come in many forms including: restructuring, establishment of new organizations and revision of mandates (UNDP, 1998). Therefore, organizational frameworks are crucial for development programmes, including UA. Among others, they facilitate collaboration, consensus and transparency, acquisition and allocation of resources, and accountability. More importantly, it becomes possible to confront common concerns from different perspectives given that organizational capacities (resources and expertise) and mandates may not necessarily be similar.

An organizational framework could be a temporary or permanent structure of a particular formation depending on the nature of the programme it is meant to serve. In addition, organizations may have similar objectives with many others and therefore may participate within a framework of this nature because they have an interest in it (Cusworth and Franks, 1999). Their policies and goals could obligate them to help in the programme or they could be beneficiaries. The collaboration of organizations with a common cause facilitates the success and sustenance of a development programme.

In this study, the collaboration of organizations to undertake an urban agricultural development process through offering technical expertise, financial support, strategic planning and co-ordination of activities to achieve the desired goals, will be understood to be an organizational framework.

2.3 Successes

It appears that the idea of organizational frameworks to support development initiatives is not new and they are becoming increasingly important for carrying out development work, especially in developing countries. Since the mid-1980s, it has become more evident that the efficiency of development work depends upon the availability and strength of relevant organizations (Dorm-Adzobu, 1995). They are crucial for the development of UA because they have a comprehensive approach in providing the services required by the urban farmers. In appreciation of organizational collaboration, Cusworth and Franks (1999:13) described it as an act of "building on existing strengths and avoiding duplication of efforts". Collaboration between organizations permits pooling of resources and a multidisciplinary approach in dealing with problems since the organizations are equipped with a wide-range of expertise. Problems that are complex may be addressed through strategic planning processes requiring organizational structures, governmental and non-governmental, at national and sub-national levels with responsibility for general planning (Dom-Adzobu, 1995). Assistance could be solicited from governmental organizations, municipalities, NGOs, farmers' associations and other stakeholders in UA to initiate a support system of this nature. Organizational collaboration is therefore important for initiating co-operation, which is necessary for the smooth running and co-ordination of an UA programme.

Canada's Bay Area community formed a coalition consisting of members from more than 30 groups to promote a sustainable urban agriculture programme and improve urban social and economic security. Further details of the coalition are outlined in Box 1.

The Bay Area Coalition for Urban Agriculture (BACUA), is a coalition of more than 30 non-profit and community organizations in the Bay area. It is composed of diverse groups such as non-profit making organizations, concerned university faculties, urban farmers, NGOs, policy think tanks, community gardening associations, farmers' market organizers, environmental organizations and many others. The purpose of the initiative was to promote research, education, extension and outreach on the various social, environmental, economic and dimensions of urban farming and sustainable food systems.

i). Objectives

- ▶ to create capacity among local community groups to develop alternative food systems, and to allow them to fully participate in all of the goals and programmes by providing resources, training and community representation in decision making.
- ▶ to set up, within a working urban farm, experimental plots where various alternative technologies of crop management are researched for optimal yields, sustainability, economic viability and land/labour productivity.

ii). Governance

BACUA opted for a joint management system (university/community partnership). A board was set up to represent all the members of the institutional arrangement. The BACUA stressed that, in whichever form of policy the board takes local organizations from groups which serve economically disadvantaged communities must be meaningfully represented. The role and responsibility of the board in overseeing the functioning and implementation of objectives and activities of the establishment should be clearly laid out in a UC-BACUA co-operative agreement.

iii). Proposed programmes

A. Research

The intention is to unveil the potential of increasing food supply, improving production methods, improving urban economic security, and restoring a form of "common good" to community life.

B. Education and training

The intention is to promote understanding of urban agriculture and alternative food systems. The education programme is designed for scholars, practitioners, university students, youth and the community.

C. Extension and community outreach

The aim is to create an urban farm as a model for a community-based sustainable economic development.

iv). Expected impacts and outcome

- ▶ Partnership for international leadership (as agriculture transcends the rural limits and becomes a focal point in the integration of food production and urban life) establishing a university-community partnership to create the first centre for sustainable urban agriculture and food systems in the world. This can contribute scientific basis as well as the mechanism to make urban communities more sustainable and secure.
- ▶ Guiding urban food policy (momentum for expanding the practice of urban agriculture is building, and the centre's work could be vital to guiding such expansion so that the cities can draw plans that include provisions of policy mechanisms for urban farmers to prosper and for collaborative grassroots projects to produce food for low income communities).

Rosset (1997)

Box 1 Example of a successful organizational framework to support UA in Canada's Bay Area

The experience of Canada's Bay Area coalition described in Box 1 transcends the idea of organizational frameworks benefiting development projects. It establishes partnership in leadership, which ensures meaningful representation of all stakeholders. From this experience, it is apparent that such partnerships (organizational frameworks) do not only benefit the disadvantaged but also facilitate development of all stakeholders in various ways.

The United Nations Conference on Environment and Development (UNCED 1992) also gave the idea of organizational frameworks a major boost since it embraces this idea in its principles. The overall objective of the organizational framework is, "the integration of environment and development issues at national, sub-regional, regional and international levels including the United Nations system". Vertical and horizontal linkages in integrated planning, policy, legislation, and institutional reform based on information generation, synthesis and dissemination and on increased public participation, are advocated for in Agenda 21.

- | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> ▶ Providing guiding policies and adoption of concrete development programmes strengthening co-operation and co-ordination of agencies involved in development programmes ▶ Encourage interaction and co-operation between intergovernmental and non-governmental organizations ▶ Strengthen institutional capacities and arrangements required for the effective implementation of programmes ▶ Establish effective co-operation and communication between all the organizations involved in an institutional arrangement ▶ Ensure that any new institutional arrangement supports revitalization and clearly defines division of responsibilities and avoids duplication of activities |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

(Agenda 21)

Box 2 Some of the specific objectives to enhance the set-up of effective Organizational frameworks to support development programmes

It seems the key purpose of organizational frameworks is to enhance strategic planning, interaction and co-operation of agencies involved in a programme, beginning from the initial phase until its completion (Box 2). With regard to UA, it is important to note that the beneficiaries of the programme are commonly under resourced (Ghebremicael, 2000). Apart from the lack of land and finance,

they may have minimal farming and resource management skills. Moreover, they are not educated enough to appreciate the development ideas that would help improve their lives. Organizational collaboration to offer a comprehensive approach and co-ordination is necessary to tackle these issues.

Other developments

As part of the general socio-economic reform process, most African countries have effected changes to promote democratic governance. Some countries have used organizational frameworks as an approach to address complex, crosscutting socio-economic, political, and environment development issues. There has been a move towards political pluralism and decentralization that has resulted in opening up of economic systems, and the increasing participation by the private sector, NGOs, and local communities in the overall process. The participatory processes have involved an encouraging cross-section from the government, academic institutions, NGOs, and local communities (Dorm-Adzobu, 1995).

South Africa is one of the countries that adopted Agenda 21 and embraced its ideas in the Constitution to address issues of a development and political nature. Sections 40 and 41 of the 1996 Constitution introduced the notion of co-operative governance. The clause states that, "in the Republic, government is constituted as national, provincial and local spheres of government, which are distinctive, interdependent, and interrelated". The principles of co-operative governance stipulated in this section require all spheres of the government and all organs of the state to "cooperate with one another in mutual trust and good faith by: assisting and supporting one another, informing one another of, and consulting one another on matters of common interest, coordinating their actions and legislation with one another" (RSA Constitution, 1996). The requirements of co-operative governance are in line with the intentions of organizational frameworks. Multisectoral participation and co-operation in tackling problems is

encouraged. This denotes the recognition of the importance of organizational collaboration in development work by South Africa.

2.4 Critical determinants

As previously mentioned, city farmers normally lack farming requisites such as land, water, technical services, and financial resources (Jacobi, et.al 2000). The urban farmers in Pietermaritzburg (Greater Edendale Area) are not spared from this plight. The implication is that UA cannot be practised extensively in this area with the prevailing problems. The local organizations such as the government departments, non-governmental organizations, academic institutions and the local government (municipality) could collaborate to provide the support services to enhance improvement in UA. The collaboration of organizations to service UA would facilitate a multidisciplinary approach in addressing the problems, since they are diverse. However, the study recognizes that various organizations have different operational policies and aims that may influence their operations and participation in an organizational framework in support of development work. Other controlling factors could be political support, perceptions of UA, organizational capacities, training, and stakeholders' participation. This section discusses issues that could influence the establishment of the organizational frameworks to support UA.

Policy

Policy may be defined as a statement of intent giving broad guidelines on preferred actions to achieve a desired future. It could be a facet of either a private or public organization and it may be informal and unwritten or a formal written document (Nugent, 1997). It is an operational tool of organizations through which their goals may be achieved. Its formulation requires facts about the prevailing problems and future expectations (UNCHS, 1996). Organizations achieve their desired goals through the guidance of policies and programmes.

Apart from the organizational policies that guide their operations, local government and national policies govern local organizations and people. The policies inform all operations in a city including customizing land use pattern. Hence, policies may be put in place to assist urban farmers in locating suitable land and other inputs to achieve 'reasonable' levels of productivity. Urban laws and regulations may be revised to be compatible with people's survival options (Mougeot, 2000). Mougeot (2000:2) further observed "to improve UA and make it more sustainable, farmers must use better practices and government must promote or better manage it through more informed policies". Several development strategies could be achieved through putting in place legitimate policies. The strategies may incorporate planning, technology transfer, technical assistance, advocacy, and assistance in overcoming legal and regulatory obstacles (Nugent, 1997). In summary, the main task for policy makers involved in city development with regard to UA would be to:

- ▶ Provide a legal framework for urban agriculture activities, which would regulate access to land and water, and define environmental standards for urban agriculture,
- ▶ Institutionalise administrative procedures to monitor positive and negative effects of UA with regard to social, economic and environmental conditions,
- ▶ Set in place and institutionalise mechanisms for effective co-ordination of UA activities, define a lead stakeholder for co-ordination and get agreement from all stakeholders (Jacobi *et al.* 2000).

Political support

Dorm-Adzobu (1995:1) claims, "political support is one of the prerequisites in the quest for sustainable development". He justifies this statement stating that government commitment to strategic planning, comprehension of issues at stake, allocation of resources for organizational development, and the general involvement of political leadership all determine the success of any planning

exercise. Also, politicians are influential in a society as they encourage society, organizations and donor agencies to support particular development programmes at national or local level in a country. Development programmes are to a large extent, a reflection of the political and economic priorities of any government. Political influence is essential to guide an activity, make it acceptable and formal, and give the mandate for its promotion or restriction (Jacobi *et al.* 2000). Politics is thus an essential feature of human organization and permeates through all levels of society (Cusworth and Franks, 1999). In relation to UA development, political support would play a significant role in mobilizing city authorities to develop a UA policy, securing project funding, and inculcating positive attitudes towards the practice in society. With sufficient political support UA could be popular and earn good support from the local organizations to the point of being incorporated in organizational policies. Hence, political support is crucial for the formation of the organizational framework to service UA in PMB.

Attitudes

Although UA is emerging in both industrialized and developing countries, as an important economic activity within the urban sector, few urban planners and decision makers assume that UA is a worthwhile and legitimate activity (Sawio, 1993). UA is viewed by the traditional urban planner, the architect, the politician and other decision makers as distracting from the image of an ideal, planned and modern western city (Sawio, 1993). This may cause a negative perception of UA. Nugent (1997:7) attested to this notion alleging "there is often a perception that agriculture is wasteful, unsightly or unhealthy in the cities". This perception is not consistent with the need to feed the ever-increasing urban populations.

This suggests attitudes towards UA are mixed. Consequently, this could account for the insufficient support of UA in PMB as suggested by Ghebremicael, (2000). The challenge is to bring about a change in attitudes regarding the activities that take place in urban areas. This would enhance participation of relevant

stakeholders such as local government (municipality) and others in the organizational framework to promote UA.

Perception of needs

The rise in urban farming particularly food production is a challenge to modern settlement experts and urban planners in matters of land use allocation and architectural design. At the same time it highlights the significance of people's struggle for survival (Sawio, 1994). It thus remains a challenge to the city authorities that are entrusted with the task of creating economically viable cities. Montgomery (2000) viewed UA as an integral part of building sustainable human settlements. This idea is based on the Agenda 21, which raises the concern of creating sustainable urban settlements. It stipulates that in order to promote sustainable human settlements, various activities must be undertaken to improve urban management and to alleviate urban poverty by "Generating employment for the urban poor through the provision, promotion and maintenance of an urban infrastructure and services, and the support of economic activities in the formal sector, such as repairs, recycling services and small businesses" (Agenda 21). Realization and understanding of the needs of poor urban dwellers would change the local authorities' perceptions of UA and lead them to support its development. It is therefore assumed that the local organizations' perception of UA denotes their response in as far as support is concerned.

Capacity

The relative capacity of organizations is an ultimate determinant of any national development strategy (Dorm-Adzobu, 1995). This assertion applies to any course of action at all levels. Explaining the meaning of capacity, Brinkerhoff and Goldsmith (1990:40) argue that, "an organization's capacity is not determined simply by its stock of human and physical capital, but by its proficiency at combining these assets for maximum output". They further stated that, "capacity is the potential ability to transform system input into outputs". Building of

institutional capacity is crucial for the development of UA. In this regard efficiency in transforming system inputs into outputs, advocated by Brinkerhoff and Goldsmith (1990) is recognized as an essential part of an organization's capacity. The organizational frameworks would have to adopt a task-oriented culture to deliver the services required by urban farmers.

Another factor that would enhance the performance of organizations in service delivery is the availability of equipment such as fully equipped offices. Allocation of such a facility in each organization would enhance the development of a database to provide up to date information regarding progress and requirements of the UA programme.

Perceptions of opportunity

Some of the problems that are an obstacle to urban agriculture could be linked to the urban township people's perceptions of farming. Their lack of farming skills and poor education could discourage urban farming, or even cause it to fail to realize its potential benefits. Due to this, urban farmers are left with no option but to rely on services offered by extension officers. Extension services are also not well provided as has been revealed in Ghebremicael's (2000) study. Another factor that could contribute to negative perceptions of UA is that poor urban dwellers lack entrepreneurial skills. The culture of being employed to make a living is deeply embedded in the lives of black people in South Africa. This could be attributed to their history of apartheid, which included political oppression, material and education deprivation ((Sibisi, *pers. comm.*). Empowerment of these people should not only be concerned with the provision of basic needs, human resource development or changing organizational framework, it should be centrally related to developing the capacities of people in ways which will result in qualitative difference to racial, class, gender imbalances and an active participation by the poor (Taylor, 2000).

The supply of required resources (land, technical support and finance) to assist black urban farmers in PMB would not be enough. An intensive training to enhance acquisition of business skills, agricultural skills and self-motivation would be of great help. It would broaden their scope of thinking, make them realize their potential and acquire the ability to utilize available resources to improve their livelihoods.

Training

Jacobi *et al.* (2000:5) observed that "urban farmers are women and men coming from all income groups, but the majority of them are low-medium income earners, who grow food for self-consumption or as income generation". Urban food production offers opportunities to be integrated into other household activities and women hold the responsibility for household food security while men tend to dominate commercial urban food production (Mougeot, 1999). Urban farmers also constitute the people who migrated to cities from different areas. They, especially immigrants from rural areas, may possess traditional agricultural skills (Gundel and Butterworth, 2000). Their lack of appropriate agricultural knowledge may prove to be a major constraint to UA. It is apparent that, training to enhance their farming skills and motivate them to engage in UA is a necessity. The establishment of an organizational framework would also depend on the presence of people willing to engage in UA and the size of that population.

Participation

The Human Development report defines participation as people having constant access to decision-making and power, as well as economic participation (UNDP, 1997). To address the problems associated with poverty, there has been an increase in strategies to promote community empowerment through participation as a means of enhancing development processes at national and local government level (Craig and Mayo, 1995). Quoting the Brundtland Commission,

Craig and Mayo (1995:2) recognized that "one of the main prerequisites of sustainable development is securing effective citizen's participation". Cusworth and Franks (1999:13) further observed, "the aggressive target-orientated managerial approach involving almost total control over autonomous project activities stimulate community participation and strengthen the capacity of local organizations". This approach has been adopted and used in rural development projects in Sierra Leone as it was considered more appropriate for achieving sustained development (Cusworth & Franks, 1999). Local people participation is therefore important for sustainability of a programme, and is a key to poverty alleviation. Participation as a group, organization or co-operative is more effective if the group is well organized. This enhances decentralization of authority, empowerment of all stakeholders and sustainability of a programme. Participation of the local communities in development processes is a key to the success and sustainability of such a programme (Whiteside, 1998).

2.5 Framework For The Research

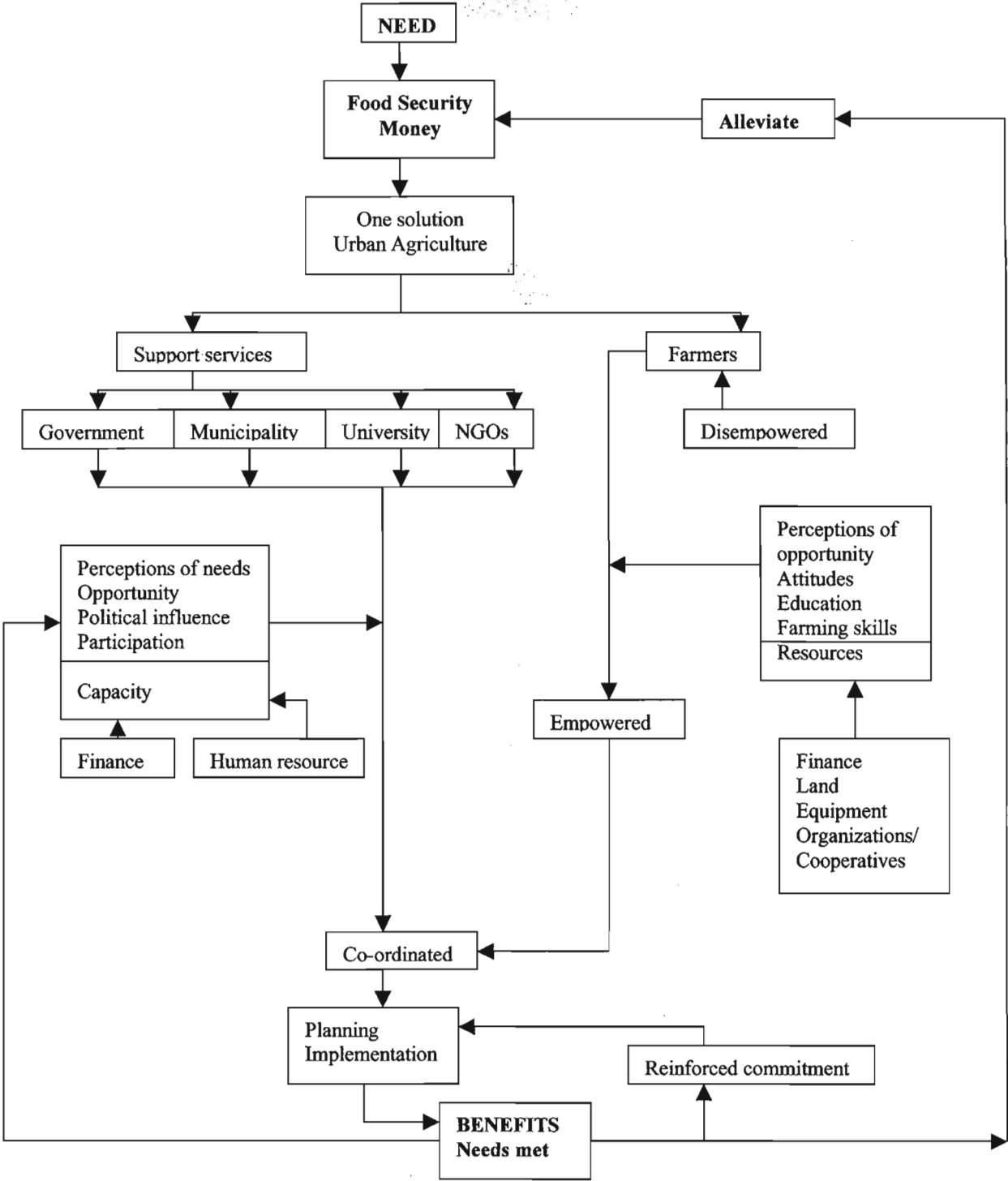


Figure 2.1 Illustrates the conceptual Framework that describes understanding of the study.

Description of the Conceptual framework

A framework describing the interrelationships between need, support services, farmers and empowerment for achievement of benefits is shown in figure 2.1. The framework shows UA to be a response to need, particularly for food security and money. Successful ventures require support services and willing participation by farmers. The support services are envisaged as being provided through a coordinated effort from government at different levels, the University of Natal and non-government organizations (NGOs). The approach and commitment of these actors reflect their perception of UA, influenced by their capacity (finance and human resource).

The participation of farmers is related to their level of disempowerment and their perceptions, which is shaped by a variety of factors.

The collaborative endeavour is intended to deliver co-ordinated planning and implementation, which brings benefits that reinforce commitment and alleviate the core problem of need. It is postulated that successful development of UA is entirely dependent upon organizational collaboration, and this is largely determined by perceptions of UA. This study sets out to determine whether the actors operate in a co-ordinated way, and if not, what factors contribute to this.

2.6 Aims and objectives of the study

Aim

The literature reviewed in this study has shown that urban agriculture has the potential to abate the poverty problems stemming from the rapid increase of the urban population. The increase of UA in the world cities as noted by several authors is a response to rapid urbanization, which is characterized by a high urban population, high level of unemployment and poverty. Although UA has a potentially positive effect in addressing urban poverty (Ghebremicael, 2000 and

Nugent, 1997) its development is normally constrained by a number of factors such as lack of enabling policies, resources and infrastructure as pointed out in the conceptual framework. In Pietermaritzburg the growth of UA is constrained by the lack of support services and resources such as land and capital (Ghebremicael, 2000). Other factors could be people's perceptions of UA and its feasibility. Hence this study sets out to:

- ▶ Determine the prospects for establishing organizational collaboration in support of UA in the Greater Pietermaritzburg Area.

Specific objectives

- ▶ Establish the local organizations' perceptions of the idea of urban agriculture;
- ▶ Establish if the local organizations have the capacity to support urban agriculture;
- ▶ Outline the problems curtailing the development and implementation of an organizational framework; and
- ▶ Make suggestions for improving delivery of UA.

CHAPTER THREE

Study Area

3.1 Introduction

This chapter provides the context for the study of UA in Pietermaritzburg. It will present the geographic background of the area to create an understanding of the reasons why the development of UA may be helpful in the Pietermaritzburg-Msunduzi Area.

3.2 Location

Pietermaritzburg (PMB) city is located within the area called the Greater Pietermaritzburg Area (GPA), which is located alongside a major development corridor namely the Durban Metro-Gauteng corridor. The nearest point of PMB to the Durban Metro is 26 km, while the city is 80 km away by national road. The city is thus well placed to benefit from national and provincial planning and development programmes aimed at strengthening development along the corridors (IDP, 1998).

The location of the city contributes to its vibrant industrial activity (CENGOPO, 2000). However, the percentage of unemployed people in this area is still very high (33%), especially among women (IDP, 1998). The in-migration of people from the neighbouring rural areas increases the level of unemployment since the migrants normally lack qualifications to get jobs. There is evidently a need for the local people to seek other means of surviving using accessible resources. UA is one of the activities they could engage in since it has the potential to uplift their well being (Ghebremicael, 2000).

3.3 Political Background

Pietermaritzburg is the capital of KwaZulu-Natal (one of South Africa's nine provinces). It is under the jurisdiction of Pietermaritzburg municipality, which also forms part of Indlovu Regional Council (CENGOPO, 2000). The province is under the administration of the premier who heads the provincial government with ten members of the executive council (MECs) drawn from the major parties. The Pietermaritzburg municipality comprises 60 councillors, 36 of whom are ward-elected and 24 come from party lists. The TLC operates through several committees (izindaba) in which the public participates. The system facilitates accessibility, transparency, and participation in the local government (IDP, 1998).

This arrangement embraces the idea of power decentralization since it allows accessibility and participation of people from all quarters when deliberating on issues of concern. Representatives from poverty-stricken areas such as the Greater Edendale Area (GEA) could use this opportunity to mobilize support for UA. The location of the Pietermaritzburg municipality is presented in figure 3.1.

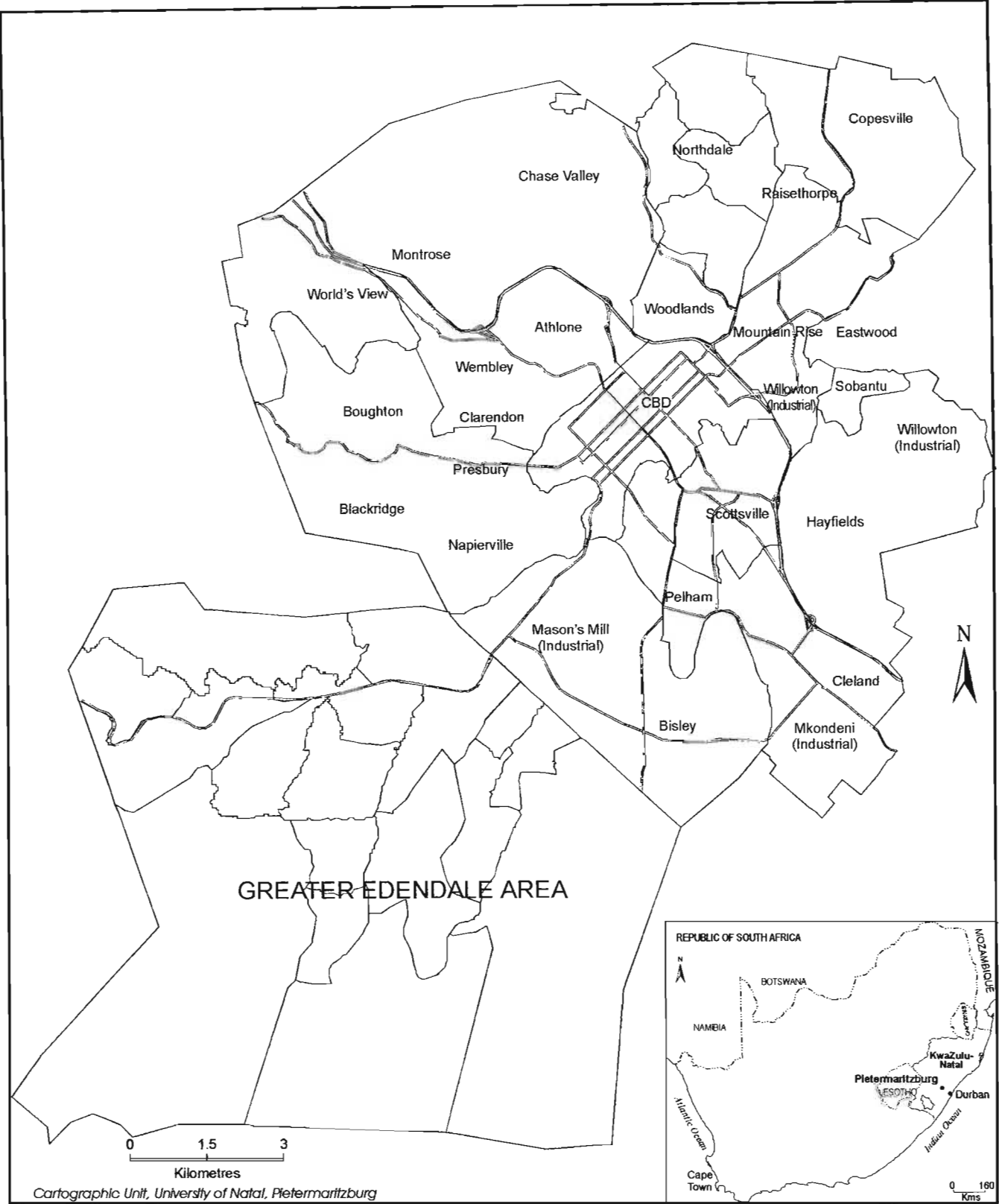


Figure 3.1 Location of the PMB municipality

3.4 Population

The population estimates of PMB municipality (Local Government) are not accurate. They vary depending on the source. In 1991, the population was estimated to be 382 848. Table 3.1 shows the population groups in PMB-Msunduzi municipality area in 1991 (CENGOPO, 2000).

Table 3.1 Break-down of population groups in the Pietermaritzburg municipality (1991)

African/Black	Coloured	Indian/Asian	White	Unspecified	Total
241 913	15 900	67 861	55238	2036	382 848

(IDP,1998)

A census carried out in 1995 estimated the city’s population to be 600 000. The gender composition of the population is 49% male and 51% female (IDP, 1998).

Black people constitute the largest group and yet they are the most economically marginalized owing to the past apartheid policies, which politically and economically disadvantaged them (Ghebremicael, 2000). Their population growth is also ranked the highest at 2.4% per annum (IDP, 1998). Based on this information, it is apparent that poverty and unemployment is still going to be high in this city for the foreseeable future.

3.5 Economy

The economy of the city has been estimated to account for about 10% of the provincial economy and thus makes a considerable contribution to the economic development of the province. Over 90% of the gross geographic product of the area is produced in the former borough of Pietermaritzburg. It has been observed that the skewed distribution of economic activity highlights the fact

that the surrounding areas are predominantly residential suburbs (IDP, 1998 & CENGOPO, 2000).

Despite the vibrant industrial activity of the city, the majority of the people are relatively poor. In 1991, the number of formally employed people was estimated to be 125 000, and the employment level has not yet exceeded this figure. The 1997 estimates projected that the primary household income level in PMB was R1207 for a household of six, and approximately 30% of households in the city fall below this level. This high proportion of relatively poor people has significant implications on the affordability levels of rates and other service's payments. This evidence supports the contention that most migrants into the city are from poorer income groups and the situation could be exacerbated over time (IDP, 1998). Growing food for own subsistence could help to secure food that they cannot be afforded otherwise. Also, growing speciality foods (such as mushrooms and indigenous vegetables) and ornamental plants (flowers) that require little space for production may be good for generating income (Mougeot, 2000).

3.6 Settlement

Most of the people in PMB city live in the Greater Edendale Area (GEA). This accounts for the high settlement density of 10-13 dwellings per hectare, while the recommended settlement density for low-income areas is approximately 3.5 dwellings per hectare (IDP, 1998). The Western and North West parts of the city (Chase Valley through to Blackridge and Prestbury) (Figure 3.1) and Eastern sectors (Pelham, Scottsville, Bisley, Hayfeilds, Lincoln Meade) are settled by predominantly white people. Mainly black people settle the Southern and South East sectors. The North parts (Northdale through to Eastwood/Glenwood) and the central area are settled predominantly by Indian and Coloured people although this pattern is changing owing to the significant movement of black

people into the area. This settlement pattern reflects the legacy of apartheid policy practices (IDP, 1998).

The GEA has few sources of local employment in relation to the size of the population. The major employment areas are the Central Area and the Willowton industrial area, with smaller employment areas being the Camps Drift/Mason's Mill and Shortt's Retreat industrial areas (IDP, 1998). The distance between the large population of the GEA and the sources of local employment, urban facilities and amenities have adverse financial implications for the city in general and for the PMB municipality in particular. Distances to the work place have impact at household level, with the poorest sections bearing the highest burden (IDP, 1998).

The aforementioned spatial and economic imbalances have created pressure for the lower income earners to move nearer to the Central and Willowton Areas. This has given rise to informal settlements particularly in the Northern and Central areas (IDP, 1998). Some of the people settle in the backyards of the factories, apparently because of agreements reached between the dwellers and the factory owners (*Mbatha, pers. comm.*).

The PMB municipality through the Town Planning Scheme and National Building Regulations, manages the city's overall settlement. Settlement is regulated through the zoning map, which indicates the use-zones (e.g. residential, business, industrial, educational, religious, open spaces) and a density-zoning map that indicates the minimum lot sizes for various uses in different parts of the city (IDP, 1998). The urbanization unit, a department within the PMB municipality, is also tasked with several duties aimed at achieving an efficient management of the city's settlements, while uplifting the livelihoods of the people. It acts as a mediator between the communities and the municipal area. Some of the duties it performs include the following (*Mbatha, pers. comm.*):

- ▶ Informing the municipality about developments occurring within the communities;
- ▶ Interpreting the municipal policies to the people within the local communities;
- ▶ Dealing directly with the councillors to communicate the intentions of the municipality while learning about the aspirations of the communities; and
- ▶ Co-ordinating housing projects and assisting the communities to set up development projects including UA.

Apart from worsening the population problem, mushrooming of informal settlements disrupts the city's settlement pattern. It also interferes with planned developments (such as UA) that could otherwise benefit the local people.

3.7 Agricultural Potential in the Pietermaritzburg-Msunduzi Municipality

The Pietermaritzburg municipal Area is approximately 25 000 hectares in extent. It is characterized by a wide diversity of natural resources, ecological attributes and an inherent agricultural potential (Smith, 1999). Identification and reservation of land for agriculture and forestry has the potential to make a valuable contribution to the development of the city, in both the economic and social spheres (Le Roux, 1999). Other factors enhancing the agricultural potential of the area such as climate, soils, and vegetation are discussed in the following paragraphs and a map (figure 3.2) showing the agricultural land potential of Pietermaritzburg municipality is shown/included.

Climatic Conditions

The city has a mild-subtropical climate, with an annual rainfall of approximately 800mm. Rainfall varies from 1200 mm at the highest elevation to less than 750 mm in the valleys. About 80% of this rain is received between October and

March. Summers are warm with the highest average temperature being 33 degrees Celsius. Winters are cool with a lowest average temperature of -1 degree Celsius and the highest average temperature of 20 degrees Celsius (CENGOPO, 2000 and Smith, 1999).

Land Potential Assessment

A land classification of PMB to assess agricultural potential was developed by Smith (1999). This assessment, based on the Bioresource Unit database information containing details about the climate and soils, was obtained from the Department of Agriculture (CEDARA).

The study area has a wide range of biodiversity and an inherent agricultural potential. The land offers a wide range of cropping options and has the capacity to produce high yields on a sustainable basis under a good management system. The North West sector has the highest agricultural potential and it drops towards the South East as a result of the drier climate associated with the decrease in altitude from the North West to the South East (Figure 3.2). The agricultural potential is influenced by the rainfall distribution pattern with the high potential areas receiving an annual rainfall of 979 to 1157 mm and the drier areas receiving less than 800 mm (Smith, 1999).

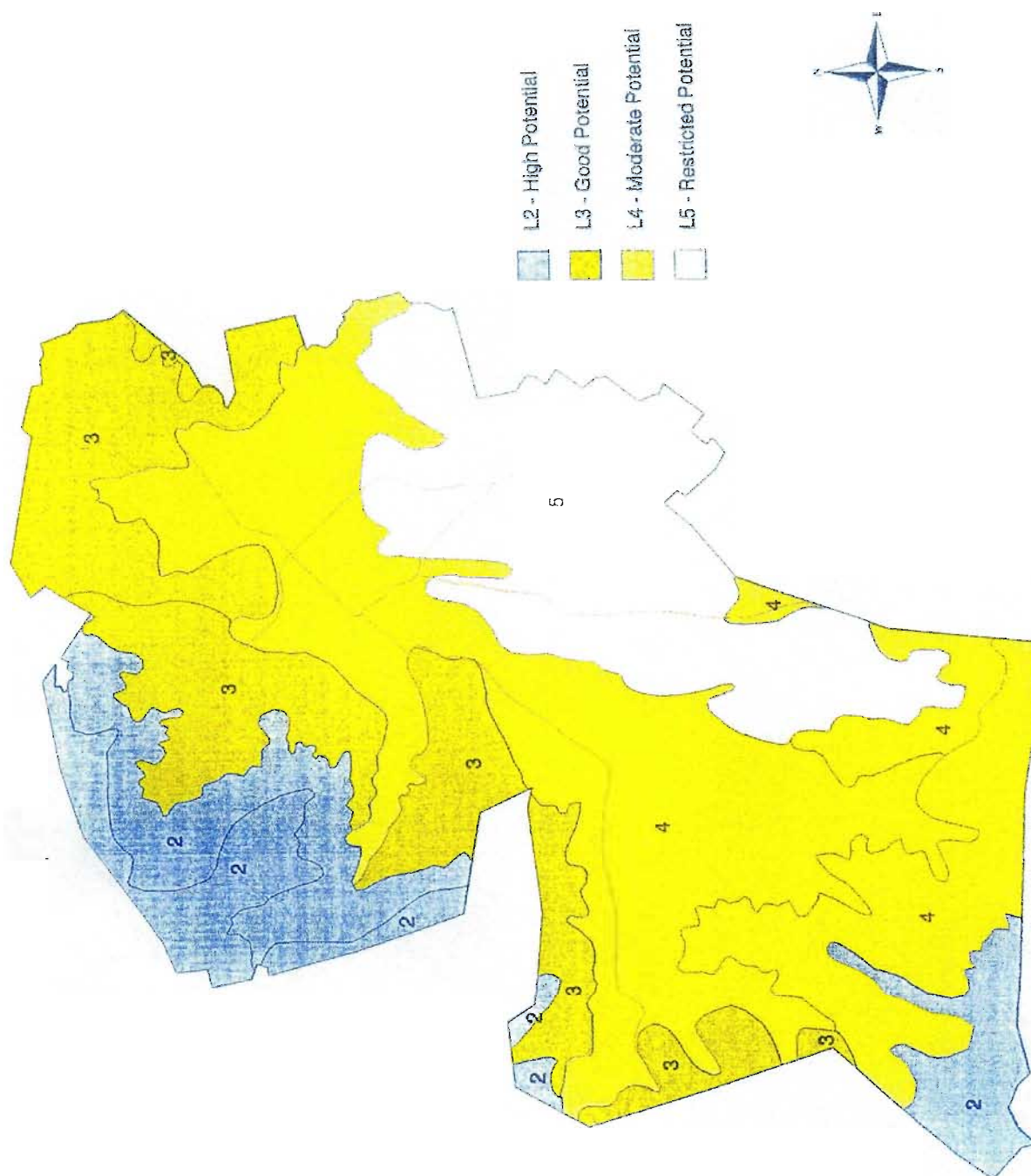


Figure 3.2 Agricultural Land Potential of PMB-Msunduzi Municipality

The dominant soils in the area are deep Huttons and Clovellys ranging in depth from 600 mm to 1000 mm, with a higher proportion of deeper soils. Hutton soils are red indicating a high content of iron, consisting mainly of silt-textured particles. Clovellys are similar to the Huttons, but are normally yellow to brown. These soils are generally good for agricultural purposes (Soil Classification Working Group, 1997). Smaller patches of other usable soils, such as Griffin and Westleigh were also identified. Griffin soils are similar to Huttons but have lesser agricultural potential. The Westleigh soils may be arable to a limited extent and they are normally rocky (Soil Classification Working Group, 1997). Flatter areas have also been identified based on aerial photographs, as potential arable land (Smith, 1999). The soil analysis indicates that the area is suitable for a wide variety of crops, particularly sugar cane, potatoes, timber, orchards and vegetables (Smith, 1999).

3.8 Opportunities for UA in PMB

The opportunities farmers have for practising UA are considered in the contexts of land, marketing, and farmers' organizations.

Access to land

In Pietermaritzburg, most of the land is owned by the Provincial Administration (Department of Housing) and the local government and some of the land is privately owned by individuals (McCormack, 1999). Owing to the shortage of available land in this area, the farmers are left to use open spaces and some portions of land on the flood plains (McCormack, 1999).

In the case of state owned land, people interested in farming it, may through their ward councillors, seek permission from the municipality to use it. This is a newly established arrangement aimed at promoting UA, and has been included in the City's development plans (LDP, 1999). These lands are normally open spaces, which may be too small for a reasonably sized gardening project. The

municipality normally requires a project proposal before granting the lease, and a lease agreement is granted after a thorough assessment to make sure the project will not have negative environmental impacts. If the lease is granted, it remains valid for a period of 30 years (Mngadi, *pers. comm.*).

Due to general land scarcity in urban areas (Mougoet 2000), it is not surprising that the portions of land available for farming in PMB are small. In PMB, land plots are available in sizes ranging from 1 to 4 ha with the mean size being 1.5 ha. Despite the shortage of land, people still wish to farm. The urbanization unit of the municipality said that a large number of people have submitted applications to be granted permission to use open spaces (Mngadi, *pers. comm.*). This is more common in newly established settlements.

Farmers' associations

During the period when the study was undertaken, three farmers' associations had been formed: the Sobantu Agricultural Co-operative, Willowfountain Zenzeleni Co-operative, and Sinethemba Youth Club from Imbali (Plate 2). The success of community projects depends partly on how well planned and organized the project is (Ndabezitha, *pers. comm.*). The formation of clubs or co-operatives when undertaking an UA project yields co-operation and organization, which subsequently strengthen operations. Also it is relatively easy for the institutions that provide services to UA to deal with a group of people rather than individuals (*pers. Obs.*).

Market

The products of UA are presently marketed within the townships and the farmers consume the surplus. Vegetables are sold at local markets (Plate 2) and tuck shops, which is quite a small market (MacCormack, 1999). The farmers hope to expand their production so that they may increase supplies, as there are large market opportunities around the city. Farmers from Imbali are close to realizing

this dream since the UNDP donated R128 000 to finance the development of a community garden called Sinethemba Food Gardening Project. Presently, the market caters for the local people who buy vegetables for domestic consumption.



Plate 2 Sinethemba youth member selling vegetables at Imbali Market (Urbanization unit file material)

3.9 Conclusion

PMB is one of the cities experiencing high levels of urbanization. This has contributed to growing unemployment (33%) and a poverty level estimated at 30% (IDP, 1998). This combination of poverty and inadequate employment opportunities within the GEA is a serious threat to the livelihoods of the people. These problems accentuate the need for initiating programmes such as UA. However, UA is generally being constrained by land scarcity, especially in the case of the GEA given the high settlement density of 10 to 13 dwellings per hectare.

The local organizations, particularly the Government departments and the local government who are tasked with ensuring social and economic security of the

local people, have an important role to play in the development and sustainability of UA. The intention of the municipality to restructure the development strategy to include, among others, the promotion of UA avails greater opportunities for the development of UA. The political environment that supports participation of all stakeholders is also conducive to initiating development that could benefit all the local people.

The natural conditions such as the soil and climate provide a good base for UA practise. The existence of farmers' co-operatives shows organization on the part of the farmers and also an indication that they have serious intent with regard to UA development.

CHAPTER FOUR

Methodology

4.1 Introduction

This chapter presents the methodology of this study. A methodology describes the processes undertaken during the course of the study. This enhances understanding of the nature of the research process. In particular, it helps expose the underlying values of the study as well as processes leading to formulating hypothesis, criteria for data collection and interpretation, and reaching the conclusion (Bailey, 1978). It explains what researchers did and how they went about conducting their study (Neuman, 1997).

This chapter has been organized around the following themes based on the methodology followed in this research: research approach, research methods, data analysis and limitations of the study.

4.2 Research Approach

The exploratory approach, using both qualitative and quantitative research methodologies, was adopted to conduct this study. This is a type of descriptive research carried out when there is lack of information in a new area of interest (Bless and Achola, 1988). It gives insight into a situation, person, phenomenon or a community (Nueman, 1997). It is often used to assess the feasibility of a project, the practical possibilities of carrying it out and the correctness of some concepts (Bless and Achola, 1988).

Why was the exploratory approach used?

Backyard gardening is not new in the townships, but the inter-organizational framework to support UA is not familiar (Ngcobo, *pers. comm.*). This suggests that the notion of organizational frameworks to support UA hasn't been explored in PMB. This deduction is also based on the observation that not much has been

written on organizational frameworks of this nature in the South African context. Accordingly, even basic ideas that should support UA such as financing and regulating policies are, not surprisingly, still in their formative stages (Local Development Plan, 1999). This is in comparison to other parts of the world such as Asia and Europe that have a long tradition of city farming and this is documented ¹ (Nugent, 1997).

An exploratory study is undertaken as an initial step before the actual project, and determines the practical possibility of carrying it out (Bless and Achola, 1988), hence the adoption of an exploratory approach to the study. In addition, the exploratory approach was chosen partly because its goals are harmonious with the intentions of this study (section 2.8.2). Neuman, (1997: 20), listed the goals of an exploratory research as being:

- ▶ To familiarize the researcher with the basic facts, people, and concerns involved;
- ▶ To develop a well grounded mental picture of what is occurring;
- ▶ To generate many ideas and develop tentative theories and conjectures;
- ▶ To determine the feasibility of doing additional research;
- ▶ To formulate questions and refine issues for more systematic inquiry; and
- ▶ To develop techniques and a sense of direction for future research.

It is also this study's intention to bring into focus any form of collaborative activity meant to service UA that may be in existence in PMB. This will enable conclusive ideas to be generated regarding the challenges, feasibility, strengths, and opportunities in the process of UA development.

¹ Urban farming can be traced back to the beginning of 19th century (Smit, 2000).

However, the exploratory study if not complemented with other research methods such as qualitative and quantitative, has a weakness because it rarely yields explicit answers to the question. It provides answers that are more assumptive than definite (Neuman, 1997), hence this study adopted both qualitative and quantitative research methods.

4.3 Research methods

Research methods refer to the tools used to collect data (Bailey, 1978). Data are empirical evidence or information (qualitative or quantitative) that one gathers carefully according to rules or procedures specified by the nature of the research (Neuman, 1997). The specific methods used to collect data for this research were a literature review, site visits and structured interviews as outlined below.

Literature review

In order to conceive a theoretical framework for the research, some background information is necessary. This is obtained by reading published material and other materials that appear relevant to the research topic. It also familiarizes the researcher with the latest developments in the knowledge in that particular area of research (Bless & Achola, 1988). In addition, reviewing literature exposes the researcher to information on what is happening in other countries and enhances an understanding of issues and concepts. During the course of this research, relevant literature was reviewed and it enhanced the development of the conceptual model of the study. It also served to provide answers to some of the research questions. These included the background information about the organizations that were involved in this study, which helped the researcher understand their operations, successes, challenges and intentions.

Site visits

During the process of data collection, the researcher had an opportunity to visit some of the UA projects in PMB. The researcher arranged some of the trips while

the respondents organized others. Some of the respondents felt it was necessary that the researcher witness some of the UA projects where their organizations were involved. The site visits made it possible for the researcher to have a clear picture of the developments. The researcher also had an opportunity of interviewing farmers and learned about their perceptions of UA and its challenges. The areas that were visited were: Sobantu, Imbali, Willowfontain, and France (a new settlement area on the outskirts of Pietermaritzburg).

Interviews

The data were collected by means of scheduled, structured interviews. Prior to the interview, a letter explaining the nature and purpose of the study would be sent to the respondent (Appendix A). A questionnaire containing close-ended (structured) and open-ended (unstructured) questions was used (Appendix B).

Close-ended questions: - are also referred to as structured or fixed response questions (Neuman, 1997). In this study the structured questions included ranking types of questions in order to assess the level of importance of some issues according to the respondents.

Open-ended questions: - these are unstructured questions or free response questions (Neuman, 1997). This type of question was also used to allow the respondents to express their views freely without any restrictions. These questions are good for gathering qualitative data, which is frequently used for exploratory research. Qualitative data tends to be open to using a range of evidence and discovering new issues (Neuman, 1997). The researcher recorded all the responses. The tape recorder helped the researcher avoid missing important points that may not have been picked up initially. In some cases the researcher had to revisit the respondents to collect further information.

Prior to conducting the interviews, nine organizations were identified where the questionnaires had to be administered. These organizations comprise

governmental departments, non-governmental organizations, and private organizations and the Local government (municipality). This section will further describe the criteria for selecting the organizations and the process of identifying the respondents.

Criteria for selecting organizations

In order to select the organizations that could provide relevant information for this study, criteria were set-up. The organizations involved in this investigation were selected on the basis that they were:

- ▶ Involved with community development through the provision of funding education, development skills extension and other services for agricultural purposes (directly or indirectly);
- ▶ Interested in, and planning the support of UA; and
- ▶ Involved in servicing or having the potential to service UA as suggested by their activities and concerns.

It can be argued that a purposive or judgmental method of selecting organizations was adopted (Bless and Achola, 1988). This approach enabled the researcher to select organizations that were not only meeting the above criteria, but also judged to be true representatives of the group under investigation (Nicholls, 1995 and Bless and Achola, 1988). It is an acceptable method of sampling used for special situations (like this study) because it permits the selection of cases with a specific purpose in mind (Bless and Achola, 1988).

Identification of respondents

The basic criterion for selecting respondents was their association with the identified organizations. In some cases, the researcher relied on being referred by key informants to respondents as a way of identifying them. This approach is synonymous with what Neuman (1997) calls snowball or chain referral sampling, a technique for identifying the cases in a network. It is based on analogy to a

snowball, which begins small but gets bigger as it is rolled over wet snow and picks up more snow (Neuman, 1997). This process was initiated by personal introductions of the researcher by her supervising professor to some of the key informants.

Whenever the respondents were identified the researcher contacted them by telephone and email. Thereafter, the letter explaining the purpose of the study would be sent. It also served to attract interest in the study on the part of the respondents. This helped to inform the respondents on the type of information they would be requested to provide as well as set the date of the meeting. Although this helped to prepare for the interview, some of the respondents would forget the date or fail to make the necessary arrangements with their supervisors. Their responses would be made reservedly to avoid divulging implicating information, as their seniors could not protect them. The questions were developed based on the objectives of the study.

4.4 Data analysis

Data analysis refers to the search for pattern in data, recurring behaviors, objects or a body of language (Neuman, 1997). It involves classification and numbering or coding of the items (questions) prior to or after going into the field. The responses are also given codes to enhance their classification according to the arrangement adopted (Silvey, 1975). This gives the researcher the basis for making assumptions or drawing conclusions to address the research questions.

For the purpose of data analysis in this study, a table was created where all the questions were recorded. The questions were given new codes. Responses were also recorded in the same table. The data were analyzed using both qualitative and quantitative approaches. The Quattro-pro computer package was used to analyze both qualitative and quantitative data. Responses from unstructured

questions (open-ended) were grouped together according to their intimations to establish the number of respondents who shared the same views about certain issues. The analysis made it possible to present the data in percentages using tables and histograms, following the advice that some of the simple tools used for characterizing information encompass tables, graphs, averages and percentages (Silvey, 1975). The implications of data was also interpreted and discussed, and conclusions were drawn.

4.5 Limitations

Organizational rules to divulge information: - in some instances, respondents could not provide information prior to seeking the authority of the senior personnel in their organizations. Respondents were reluctant to go through the formal procedures in order to get approval from senior authorities. This problem occurred despite the efforts made to send letters prior to the date set for the interview. Hence, some respondents reluctantly and cautiously participated in the study. While this may be a limitation, it shows very clearly insecurity in interpreting the role of the organization in UA. This would support the conclusion that as presently operating, these organizations' ability to support UA is faced with serious limitations arising from internal management issues and perceptions thereof.

Difficulty of analyzing qualitative data: - analyzing qualitative data was not easy. Similar responses would be given to address different issues. This could result in reiteration or distortion of facts to some degree. However, the researcher managed to be cautious when analyzing data.

4.6 Conclusion

This chapter served to describe the methodology used to carry out this investigation. The research methods used included: site visits, literature review and interviews (structured and unstructured). These methods were helpful in

obtaining both qualitative and quantitative data which is appropriate for exploratory studies, since they help yield explicit information (Neuman, 1997). Due to the similarities in responses given to different questions, caution is needed when analyzing qualitative data to avoid reiteration of ideas.

CHAPTER FIVE

Results

5.1 Introduction

The conceptual framework developed from the understanding gained by reviewing literature indicates that a major underlying factor in the failure of Urban Agriculture is to be found in the perceptions local organizations have of UA and their level of support for it. With this in mind, it was appropriate to establish the extent to which local organizations perceive UA in the Greater Pietermaritzburg Area to be relevant in the alleviation of poverty and in achieving food security and their readiness to support UA. This chapter presents the findings from interviewing people from ten organizations that were considered as potentially important role players in UA.

5.2 Organizations

Ten local organizations that could support urban agriculture in different ways were selected for the study. They consisted of government departments, non-governmental organizations and private sector organizations, and included the following: Greater Edendale Environmental Network (GREEN), ACAT, Farmers Support Group (FSG), Institute of Natural Resources (INR), African Enterprise (AE), University of Natal; Centre for Rural Development Systems (CERDES), Municipality, Agricultural Research Council, and Provincial Government departments of Agriculture and Health. Seventeen people who are employees in these organizations were interviewed. Table 5.0 shows the list of respondents and their departments within the ten organizations, and a brief description of each organization and its potential roles are given below.

Table 5.1 Number of respondents and the departments in the organizations

Organizations & Sections /Units	No. of respondents	Total
ACAT Social development unit	1	1
Institute of Natural Resources Management Agriculture section System development	1 1 1	3
Farmers' Support Group Programme directorate Training department	2 1	3
African Enterprise (AE) Social empowerment and development unit	1	1
Greater Edendale Environmental Network System development section	1	1
Department of Agriculture (Provincial) Technology department Extension Services Unit	1 1	2
Department of health (Provincial) Nutrition department	1	1
Agricultural Research Council Management	1	1
University of Natal Management-Center for Rural Development Systems PhD student-researcher in wetlands vegetation & involved in community outreach	1 1	2
Local government/Municipality Local council parks-recreation division Urbanization unit-city planner's unit	1 1	2
Respondents		17

1. Africa Co-operative Action Trust (ACAT)

ACAT is a Christian Development Trust that is committed to enabling rural households to improve their quality of life. ACAT operates a training center that serves to provide the education and training required to achieve sustainable development.

Mission statement: To provide a range of educational and training programmes that will empower rural communities and unemployed persons to become socio-economically self-reliant.

Objective: To provide relevant adult education, training programmes for rural communities and appropriate skills courses for unemployed persons.

Programmes: Courses designed for unemployed persons include the following: Applied agriculture, Agricultural technology, Food and textile technology, Home craft and Family care and management and Entrepreneurship.

Strategy and area of operation:

ACAT has developed a development framework that includes the basic building blocks necessary to achieve organizational and leadership capacity, appropriate education and economic improvement in each rural community. It has assisted communities to form savings clubs, offered skills training, established community structures and offered expertise on how to implement project initiatives. This organization accepts trainees from all over South Africa, but the Pietermaritzburg Branch normally receives students from the KwaZulu-Natal province. It also provides services to communities within this province in rural and urban areas if requests have been made (ACAT information brochure; Sibisi, *pers. comm.*).

2. Institute of Natural Resources (INR)

The INR is an Associate Institute of the University of Natal, collaborating in research, training and outreach.

Mission statement: To promote the wise and sustainable use of natural resources through the integration of conservation and development.

Objective: To enhance a balance between the use of natural resources, human needs and development.

Programmes: The INR is involved in the following programmes: Natural Resource Management, Integrated Development Processes, Agriculture and Agribusiness and Coastal Research and Management.

Strategy and area of operation: To meet its objectives, the INR is engaged in a number of activities such as:

- ▶ The research and selection of rural enterprise opportunities appropriate to the needs of impoverished rural communities;
- ▶ The building of a comprehensive network, and an information dissemination and training programme;
- ▶ The upgrading and expansion of the services offered to small-scale farmers at the INR's research, demonstration and training farm, Nansindlela;
- ▶ The development of farmers' abilities to identify and express needs; and
- ▶ The expansion of the INR's interactions with small-scale farmers.

The INR extends its services throughout the whole of South Africa and internationally in both rural and urban areas. Its clients, partners and beneficiaries include rural and peri-urban communities, development and conservation organizations, research institutions for rural development and natural resources (national and international), the private sector (mining, forestry, transport, eco-tourism), government departments and donor agencies.

The INR is committed to helping impoverished communities in both urban and rural settings and to promoting agriculture and natural resource management among small-scale farmers. The INR is also currently assisting Sobantu

Environmental Action Group to establish a community garden (INR Prospectus; INR Annual Report 1998/1999; Hay, *pers. comm.*).

3. Farmers Support Group (FSG)

The FSG was an NGO and has recently been incorporated into the University of Natal, Pietermaritzburg. It is part of the University's Centre for Rural Development within the School of Agricultural Sciences and Agri-Business.

Mission statement: To support rural communities in KwaZulu-Natal to manage their communal natural resources in a sustainable and productive way.

Objective: To offer an integrated programme of education, research and community development in sustainable agriculture and rural development meanwhile using and developing participatory methodologies which actively involve community members in analyzing issues, planning and implementing activities to improve their livelihood.

Programmes: These involve:

- ▶ Natural resource management;
- ▶ Environmental education;
- ▶ Self-governance;
- ▶ Micro-enterprise development; and
- ▶ Participatory methodologies.

Strategy and area of operation: The FSG shares experiences with other development practitioners and organizations through training and advice. It extends its services to rural communities within the KwaZulu-Natal province. It has also started to offer assistance to emerging farmers' groups located in urban areas (FSG information brochure and Thobela, *pers. comm.*).

4. African Enterprise (AE)

AE is an NGO based in the Cascades area of Pietermaritzburg and developed guided by Christian values. It offers courses designed to provide students with a broad, solid foundation of developmental skills and theory, based on Christian principles.

Mission statement: To initiate development by empowering people through participation by offering an educational programme in social empowerment and development to help the under-privileged improve their lives and transform their communities.

Objective: To provide development facilitators for the vast numbers of impoverished communities in South Africa, the facilitators being agencies or advisers with skills and resources to engage in community designed and approved projects and activities. To address the social, political, economic and spiritual needs of the community, at the same time recognizing the needs and resources of the environment.

Programme: The AE offers a 3 year Diploma Programme

in Social Empowerment and Development. Students are trained in subjects such as business management, project management, and evaluation and social research for development. During the 3 year course each student, as partial fulfillment of the programme, has to work with a specific community on a particular project. The project could be any of the following: gardening and poultry rearing, sewing, handcraft making, HIV-AIDS educating, and operating of pre-schools.

Strategy and area of operation: The AE serves people from within KwaZulu-Natal in both urban and rural settings. Students engage in community projects as part of the learning process, which the course facilitators closely monitor (Plate 2).

The AE assists people to initiate self-help projects through its educational programme (AE information brochure; Hina, *pers. comm.*).



Plate 2 Tutors from AE check on student's project (AE file material)

5. Greater Edendale Environmental Network (GREEN)

GREEN is a non-profit, community based organization. It is responsible for spearheading environmental issues in and around Pietermaritzburg, mainly in developing communities.

Mission statement: To create a platform for civil society to articulate its environmental concerns and to assist civil society organizations and community groups to engage in a powerful and informed way with decision makers about the environmental issues, which affect their lives. This is done to ensure a healthy environment now and in the future. This is based on the understanding that a strong and vibrant civil society is a pre-condition for sustainable development.

Objective: To build and achieve a sustainable living environment and promote environmental debates through effective and extensive information exchange.

Programmes: GREEN is currently involved in the following projects:

- ▶ Greening and Floodplain Management:- this is aimed at facilitating community gardens and fruit tree planting along floodplain areas for sustainable development of these communities, as opposed to human settlement, which could have catastrophic results at times;
- ▶ Community Communication Network:- this is aimed at establishing electronic communication networks that would facilitate environmental information transfer as well as skills transfer at community level;
- ▶ Environmental Education and Training:- this is aimed at empowering communities through formal and informal training on environmental issues; and
- ▶ Catchment Rehabilitation and Integrated Catchment Management:- this is intended for the stabilization of riverbanks, and the improvement of water quality thereby contributing to effective Integrated Catchment's Management.

Strategy and area of operation: GREEN sees its role as that of building bridges between the policy and decision makers on one hand and those who are affected by these decisions on the other hand. As a way of building and strengthening the bridges, this organization has undertaken the following activities; research (needs assessment), capacity building, network building, information gathering and dissemination of information and lobbying (GREEN Annual Report, 2000).

GREEN is committed to building a sustainable living environment. Its programmes include floodplain management, which encourages the development of agricultural practices on the floodplains of the Msunduzi River instead of human settlements. GREEN is located in Pietermaritzburg and it extends its

services to the local townships and peri-urban areas. It was selected for this study because it is already involved in the development of UA in Pietermaritzburg.

6. KwaZulu-Natal Department of Agriculture (Provincial)

The Department of Agriculture is committed to promoting and facilitating agricultural project development to improve the quality of life of the agricultural community in the Province of KwaZulu-Natal.

Mission statement: To promote, in partnership with the relevant role players, a prosperous community through sound agricultural and environmental practices.

Objective: To optimize the vast agricultural potential of KwaZulu-Natal and enhance environmental stability.

The KwaZulu-Natal Department of Agriculture (DoA) consists of several sections. The researcher interviewed people from two sections of the DoA. They were the Extension Services Unit and the Technology Section.

a. Extension services:

The section, within existing capacity constraints, provides development and extension support for agricultural development programmes and projects.

b. Technology section:

This section of the DoA is concerned with developing new farming systems and appropriate technology to meet the needs of small-scale farmers.

Programmes:

- Unlocking Agricultural Potential: enhancement of the economically viable development of under-utilized agricultural potential and the

creation of employment and adequate infrastructure. This involves development of small emerging and commercial farmers;

- ▶ Food Security: production of or the means to acquire safe and wholesome food of quality and quantity, which is affordable and accessible;
- ▶ Animal Health: control of animal diseases to safeguard human health and
- ▶ Environmental Care: enhancement of sustainable land use based on land capabilities.

Strategy and area of operation

The KwaZulu-Natal Department of Agriculture serves the whole farming community of the Province of KwaZulu-Natal. The farming community consists of a wide range of farmer groupings, namely household food security farmers, developing commercial farmers and commercial farmers. The Department's agricultural development approach includes the following aims, to:

- ▶ Encourage the development of viable, long term, economically sustainable agricultural projects;
- ▶ Recognise the holistic nature of viable agriculture, and the interdependence of various disciplines and role players;
- ▶ Establish partnerships with the farming community, and with donors and investors;
- ▶ Plan with the farming community, and not for them; and
- ▶ Develop support capacity.

.(General background and information report, 2000).

7. Department of Health (Nutrition department)

The KwaZulu-Natal Department of Health (DoH) is committed to taking the lead in advocating optimal nutrition. It is involved in the development and implementation of an integrated nutrition strategy based on human

development, and sustainability, and is community oriented. The programme targets the most vulnerable groups, especially women and children.

Mission statement: To provide leadership and guidance to the National Health System (NHS) in its effort to promote and monitor the health of all people in South Africa, and to provide caring and effective services through the Primary Health Care (PHC) approach.

Objective: To set in motion fundamental processes leading to a sustained improvement in the nutritional status of vulnerable individuals, communities, and especially children under five years of age.

Programmes :

- ▶ Health facility-based nutrition programme;
- ▶ Community-based nutrition programme;
- ▶ Nutrition promotion, communication, advocacy and legislation, and a
- ▶ Nutrition surveillance system.

Strategy and area of operation: Community-based nutrition programme.

The Nutrition Unit of the Health department through the community-based nutrition programme, intends to improve the nutritional status of the most vulnerable individuals and communities. It hopes to achieve this by ensuring the incorporation of new ideas and practices, providing information, education and communication within the target group.

The Nutrition Unit in KwaZulu-Natal has embarked on a number of projects to achieve the goals of the community-based nutrition programme. These projects include educational programmes on nutrition, health and food management, and the setting up of community and school gardens. This Unit works in collaboration with the Department of Agriculture and the Independent Development Trust

(IDT). The DoA and DoH initiate the projects and provide their expertise on technical matters. The IDT is an organization that deals with the management of projects in communities. It ensures implementation and also monitors progress of the projects (White Paper on Health Issues, 1997; Ndabezitha, *pers. comm.*).

The Department of Health is concerned with promoting and monitoring the health of all citizens of South Africa by ensuring a sustained, improved nutritional status. As a result it has undertaken to help the setting up of agricultural projects in urban and rural communities to provide food security and generation of income.

8. Agricultural Research Council (ARC)

ARC is a private organization working closely with government agencies such as the Department of Agriculture and several other agencies in promoting agricultural science. It is also involved in diverse activities that play an important role in the production of food, feed, fibre, fruit, and natural resource conservation to sustain agricultural practices.

Mission statement: To promote agricultural and related sectors through, technology development and transfer of knowledge in order to:

- ▶ Enhance the natural resource base and environment;
- ▶ Sustain a competitive agricultural economy;
- ▶ Provide new economic opportunities;
- ▶ Ensure high quality and safe food;
- ▶ Support an informed society; and
- ▶ Encourage the national growth and development of South Africa.

Objectives:

- ▶ To commercialize resource poor agriculture;
- ▶ To manage natural resources;
- ▶ To provide information service support; and

- ▶ To encourage competitiveness in farming as well as help improve quality of life.

Programmes:

- ▶ Encouragement of sustainable rural livelihoods;
- ▶ Provision of national support services;
- ▶ Support for grain and industrial crop farmers; and
- ▶ Support for horticulture and livestock farmers.

Strategy and area of operation:

ARC research programmes consist of a range of multidisciplinary agricultural activities and services aimed at achieving its goals. ARC interacts with National, Provincial, and Local government as well as Universities, Technicons, and Farmers' associations in South Africa to execute its services (Agricultural Research Council Website).

ARC is concerned with improving food production technology and with the conservation of natural resources as a way of sustaining agricultural practice in the country. It also works with all agencies concerned with agriculture in the country. Its ability to interact with various stakeholders in the agricultural sector would benefit the institutional framework this study envisages would benefit UA.

9. University of Natal: Centre for Rural Development Systems (CERDES)

The Centre for Rural Development Systems is part of the School of Agricultural Sciences and Agri-Business in the University of Natal. It offers an integrated programme of education, research and community development (Rijkenberg, *pers. comm.*).

Mission statement: To address rural poverty in an integrated manner which must involve improving food security, enhancing primary/secondary education,

enhancing capacity building of the youth and women, enhancing civic participation, introducing entrepreneurship programmes, and attending to health /nutrition issues.

Objective: To conduct the programme (an integrated rural development programme of education, research and community development), applying its expertise in agriculture, its knowledge of the environment, its expertise in the southern African flora, its education, health, nutrition and entrepreneurial skills, and its student resources, for the sustainable upliftment of resource-poor rural communities in South Africa, while informing and transforming its own teaching, research and extension programmes.

Programmes:

The key programme consists of two components:

- ▶ The research into and the demonstration of new small-scale farming; and
- ▶ The provision of support services for extension in the community.

Strategy and area of operation: The CRD interacts and exchanges information with local and international universities. It is part of the KwaZulu-Natal Agricultural Forum that has been created to co-ordinate rural agricultural development initiatives in the Province. It extends its services within the province of KwaZulu-Natal through collaboration with several ministries at both National and Provincial levels, as well as NGOs and CBOs (Rijkenberg and Gourley, 2000).

Although the programme is designed for rural areas, the CERDES extends its services to urban areas should a need arise. The CERDES was selected by the researcher because of its commitment to agricultural development, to food security and nutrition and to extension support. The CERDES's expertise in agriculture could enhance the development of urban agriculture. Although its

principal focus is on rural agriculture it does assist in peri-urban and urban situations (Rijkenberg, *pers. comm.*).

10. Local Government

The local government could not furnish this study with information pertaining to its policies and aims. The reason given was, that the council was in a transitional period, and was still in the process of reconstructing its policies, and restructuring departments and their operations. There was concern that should information be given, it would be wrong and outdated. However, the local government responded to the questionnaire, giving information about its activities with regard to UA. The researcher also through reviewing literature obtained relevant information relating to UA. The local government voiced in the Local Development Plan of 1999, its intention to establish an Urban Agriculture Working Group within the Msunduzi River Catchment's Management Forum and Local Agenda 21 sub-committee. The aim is to promote UA by providing advice and support to identify immediate opportunities, resolve constraints, and solicit funding to get interested and willing groups started on sustainable urban agricultural projects (IDP, 1999). The arrangement of land acquisition through leasehold to benefit urban farmers, (discussed in section 3.8) is another way in which the local government supports UA.

5.3 Description of organizations' programmes in support of UA

The framework developed to structure this research indicated a critical dependence on a range of agencies for the success of UA. Pursuant to this, a review of the mission statements, objectives and programmes showed an explicit concern by the chosen organizations for natural resources management, development of programmes for sustainable agriculture and the upliftment of the current living conditions of target communities mainly through education on nutrition and health improvement. Another feature was the specific rural focus most of the organizations had. The local government was the only organization

that indicated explicitly its intention to include UA in its future development policies. However, despite the silence on UA, most of the organizations are currently supporting UA programmes. Others offer educational programmes and funding that directly benefit such programmes.

The INR for example initiated and is co-ordinating community garden projects in Sobantu (Hay, *pers. comm.*). The FSG although it is working with several rural communities, has spread its services to assist emerging farmers in urban areas (Thobela and Ntinga, *pers. comm.*). The INR, CERDES and ARC intend embarking on research to identify more opportunities for promoting UA. The CERDES is one organization whose programme was designed with a rural focus, but now has plans to accommodate urban farming. One of its projects intended at promoting UA is to conduct research on production and marketing of indigenous vegetables e.g. *umfino*. The CERDES intends to encourage poor urban dwellers to grow and sell indigenous vegetables since they are cheap to produce. Their production requires minimum space, low capital investment, and crop management is also minimal (Rijkenberg, *pers. comm.*). The DoH encourages and assists in setting up of school gardens in rural and urban areas (Ndabezitha, *pers. comm.*). Moreover, these organizations have experience in community development. They could draw from their experiences to initiate the proposed expansion of UA in PMB.

5.4 Perceptions of UA by organizations

To elicit the local organizations' perception of UA, respondents from the different organizations were requested to provide information regarding their understanding, experience and attitudes towards this practice. The framework on which this study is structured, suggests that the success of organizational development to support UA depends on organizations' and employees' perceptions of UA. Respondents were asked to consider their organizational support for UA development, its feasibility, importance and its potential benefits

to the local people. Their views concerning the local people's attitudes towards UA were also solicited. The following section presents their responses.

Understanding of Urban Agriculture

It is not possible for an organization to support UA if employees have no understanding of the concept. Their understanding of UA was determined based on their ability to satisfactorily define it, and their experience of UA. A reference definition was set up; *urban agriculture is any form of agricultural practice occurring within the confines of urban environments*. This definition was chosen to reflect that UA embraces various agricultural practices. It is also not restrictive. Respondents were invited to define UA and to indicate if they had experience of it. Definitions varied from *a part of a broader concept of agriculture, just that it is practised on a small scale*, to *a conventional type of agriculture and growing fruit trees, flowers and wetland grasses in urban environments*.

On the basis of the definitions given, it is clear that not all respondents appreciate practising agriculture in urban areas as compared with rural environments. This is based on the fact that some respondents omitted to mention that the practice occurs in urban environments. When respondents did not define UA in urban terms, no attempt was made to elicit an alternative definition. This approach was adopted because if they were given reason to revise their definition, it might have prejudiced their responses to the following questions. It might also become evident in their responses to other questions that they had in mind urban agriculture though they may not have stated it explicitly.

Table 5.2 Researchers' interpretation of their understanding of urban agriculture by respondents (refer to text for explanation)

Understanding of urban agriculture	Non-government organizations (n=9)	Government departments (n=3)	Private sector (n=3)	Local Government (n=2)	Total	%
Know	8	2	3	2	15	88
Not sure	1	1	-	-	2	12
Don't know	-	-	-	-	0	0
Total	9	3	3	2	17	100

Source: Fieldwork questionnaire

The responses were reviewed and it was noted that, some definitions excluded both small scale and urban. Eighty-eight percent of the respondents appeared to have a good understanding with experience of UA (Table 5.2). Only 12% had no experience in the subject but appreciated it. Since the majority of respondents have good understanding of the UA concept, this is an opportunity for its development. The mere knowledge of what UA is, its demands, challenges and potential benefits could be a stimulus for such individuals to support UA within their organizations. In this regard, UA may benefit in terms of resource mobilization and allocation through project proposal writing and negotiating with potential donors/collaborators.

Organizational support for urban agriculture

To determine organizational support for UA, respondents were invited to rank their organization's support of UA development initiatives (Table 5.3). Their responses ranged from supportive (29%) to strongly supportive (71%) with respondents from the government departments and the university ranking their individual organization's support as being strong. None of the respondents suggested that their organization was not supportive of UA. Basically, all the organizations included in this study support UA initiatives.

Table 5.3 Perceptions regarding organizational support for urban agriculture

Level of support	Non-Government Organizations (n=9)	Government Departments (n=3)	Private sector (n=3)	Local Government (n=2)	Total	%
Strongly supportive	5	3	3	1	12	71
Supportive	4	-	-	1	5	29
Neutral	-	-	-	-	-	0
Not supportive	-	-	-	-	-	0
Total	9	3	3	2	17	100

Source: Fieldwork questionnaire

Reasons for supporting urban agriculture

The respondents were also requested to give reasons why the organizations they worked for supported UA. Reasons given (Table 5.4) were that the organizations were mandated by organizational policies to support agricultural development; that they recognized the need for UA and appreciated its potential benefits; and that the organizations wanted to ensure the sustainability of agricultural programmes in urban areas to benefit poor urban dwellers. Based on the review of the roles played by organizations in promoting UA (section 5.2) and the reasons for their supporting UA, it may be assumed that one of the fundamental reasons these organizations support UA is that their governing policies originated with the intention to alleviate the prevalent problems associated with food insecurity, poor nutrition, poor health and poverty.

Table 5.4 Perceptions of why local organizations support urban agriculture

Reasons for supporting UA	Non-Government Organizations (n=9)	Government departments (n=3)	Private Sector (n=3)	Local Government (n=2)	Total	%
To ensure sustainability of UA	5	3	1	2	13	76
Acknowledge need of UA & potential benefits	5	1	-	2	8	47
Mandated by institutional policy	2	1	2	-	5	29

Source: Fieldwork questionnaire. (Multiple responses were permissible)

Respondents' attitude towards urban agriculture

To effectively provide support services to UA, organizations need to have personnel who have positive attitudes towards UA and believe in it to be one of the solutions relieving the problems associated with food insecurity. Respondents' views regarding UA were sought because, as employees of the organizations that could provide services to UA, they might have first hand information regarding the needs and problems of urban farmers. They would be in a better position to make a rational analysis of the farmers' situation and make appropriate recommendations.

To ascertain attitudes, respondents were invited to rank these and to further give their personal views regarding UA. Seventy-one percent of the respondents indicated that they were very supportive of UA and 18% were supportive (Table 5.5). Only 12% of the respondents were neutral. It is possible that respondents' attitude is influenced by the lack of commitment shown by their organizations². Respondents from the Local Government and the private sector said they were strongly supportive of UA. The results show that a high percentage of the respondents are supportive of UA.

² This was mentioned by some respondents during the interview.

Table 5.5 Respondents' attitudes, by rank, towards urban agriculture

Level of support	Non-Government Organizations (n=9)	Government Departments (n=3)	Private Sector (n=3)	Local Government (n=2)	Total	%
Strongly supportive	6	2	2	2	12	70
Supportive	2	1	-	-	3	18
Neutral	1	-	1	-	2	12
Non-supportive	-	-	-	-	0	0
Total no of responses	9	3	3	2	17	100

Source: Fieldwork questionnaire

Although most of the respondents were supportive of UA, their ideas of how it should be put into practice differed. This was apparent in their reasons for supporting UA. Some felt that instead of conventional agriculture that involves vegetables, crops and livestock production, other options should be explored. The options that were suggested included fruit production, the growing of wetland grasses and medicinal plants. In addition, some of the respondents said they would prefer supporting farmers involved in large-scale production, while others mentioned that agriculture should be practised in rural areas where poverty is rife (See Appendix B). However, with the land shortage problem that prevails in PMB, large-scale production here is not possible (Ghebremicael, 2000) and in any event it would be inconsistent with the concept of UA. These responses showed that some of the respondents, although a few (12%), still have doubts regarding UA. However, most of them expressed their support for UA, and indicated their wish to be involved in UA activities to ensure its sustainability³ since they appreciated its role in providing food security to the urban poor.

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Feasibility of urban agriculture in Pietermaritzburg

Perceptions, regarding the feasibility of agricultural practice in Pietermaritzburg, are important in that they could either facilitate or restrain UA development. Respondents were asked to give their opinion regarding the feasibility of UA in this area. Fifty-nine percent of the respondents ranked UA as very feasible while 41% ranked it as feasible (Table 5.6).

Table 5.6 Perceptions of the feasibility of UA in PMB

Responses	Non-Government Organizations (n=9)	Government Departments (n=3)	Private Sector (n=3)	Local Government (n=2)	Total	%
Very feasible	5	2	2	1	10	59
Feasible	4	1	1	1	7	41
Not feasible	-	-	-	-	-	0
Total of responses	9	3	3	2	17	100

Source: Fieldwork Questionnaire

When requested to justify their responses, respondents put forward a number of factors that determine the feasibility of agriculture in this area were suggested (Table 5.7). Included were the soil and moisture conditions, possible farming options, available resources (open spaces, floodplains, expertise, funding made available by organizations such as INR), support from local organizations, information availability (e.g. University and DoA), and willingness to farm. Factors such as soil and moisture in this area are evidently conducive for successful agricultural practice. This is supported by the assessment of the agricultural potential of the area (Section 3.7). Most respondents from the various organizations did not consider the level of commitment by farmers, and support for UA by local organizations to be determinants of UA feasibility. As a result, only 18% of the respondents noted the commitment of farmers and 12% noted the support of local organizations as being factors influencing feasibility. The failure of most respondents to identify these factors, which were included in the conceptual model as part of the determinants of UA feasibility in PMB,

indicates differences in what is perceived important for UA development by most of the respondents and the researcher. This may account for the poor co-ordination among organizations supporting UA⁴.

Table 5.7 Perception of factors that could contribute to the feasibility UA in PMB

Responses	Non-Government Organizations (n=9)	Government Departments (n=3)	Private Sector (n=3)	Local Government (n=2)	Total	%
Soil and moisture conditions	1	2	1	1	5	29
Possible farming options	2	1	1	1	5	29
Available resources	5	2	-	1	8	47
Information availability	3	2	2		7	41
Support by local institutions	1	1	1	-	3	18
Commitment of farmers	-	-	1	1	2	12

Source: Fieldwork Questionnaire (Multiple responses were permissible)

Respondents' opinions relating to the feasibility of different farming options for the Pietermaritzburg environment are summarized in (figure 5.1). They include vegetable and crop production; poultry farming; fruit production; medicinal plant production; and wetland grass farming. Vegetable and crop production were popular suggestions (59%) followed by fruit (41%) and poultry farming (35%). Medicinal plant growing and the growing of wetland craft grasses were perceived to be the least feasible (23% each), possibly because these are perceived to be relatively new commercial enterprises. It is possible that the popularity of vegetable crop, and poultry production is influenced by their direct link to an household consumption and to awareness of markets.

⁴ Poor co-ordination of services afforded to UA was mentioned by some respondents during the interviews.

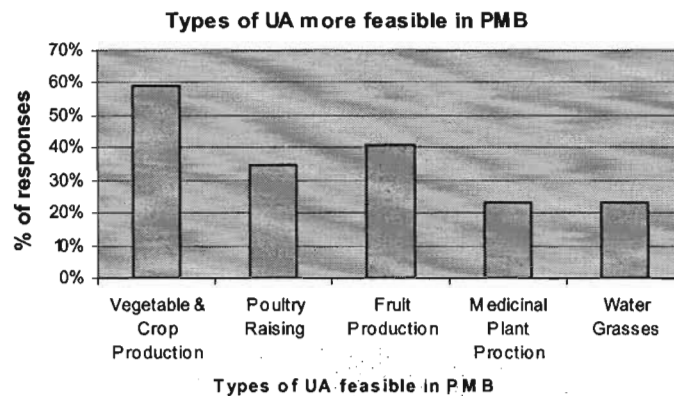


Figure 5.1 Types of UA that might be feasible in PMB
(Multiple responses were permissible)

Farmers' attitudes to urban agriculture

Farmers' attitudes to UA's potential benefits also have an effect on its development. The respondents were requested to rank their impression of the local people's likely response towards UA practice. The responses ranged from negative to strongly positive. Forty-one percent of the respondents mentioned that the local people feel strongly positive about practising UA, 35% said they were positive, while 6% believed they were negative (Table 5.8). Most of the respondents particularly from the university, local government and the government departments, except for one, believe that urban people would be keen to practice agriculture.

To substantiate their opinions relating to the farmers' perceptions of UA, they gave reasons such as that they had observed that active participation in UA activities occurs when the community people are the initiators of the project. Other factors mentioned that encouraged participation were the level of organization within a group of people (associations) and the availability of resources such as land and farming inputs. They also pointed out negative factors, for example black people are often more keen to work for a salary as

compared to being self-employed, they have a tendency to doubt their potential to sustain projects owing to lack of entrepreneurial skills, and their lack of farming skills and resources also discourages them.

Table 5.8 Respondents' opinions regarding farmers' perceptions of urban agriculture

RESPONSES	Non-Government Organizations (n=9)	Government Departments (n=3)	Private Sector (n=3)	Local Government (n=2)	Total	%
Strongly positive	6	1	-	-	7	41
Positive	2	1	1	2	6	35
Neutral	1	-	2	-	3	18
Negative	-	1	-	-	1	6
Total	9	3	3	2	17	100

Source: Fieldwork Questionnaire

Political support

To ascertain the views of respondents with regard to political support for UA, they were asked if they considered it necessary for the improvement of the UA programme. Eighty-two percent of the respondents stated that they believed political involvement would be relevant for this programme (Table 5.9).

Table 5.9 Respondents' opinion of the need for political support in the development of UA

Responses	Non-Government Organizations (n=9)	Government Departments (n=3)	Private Sector (n=3)	Local Government (n=2)	Total	%
Yes	6	3	3	2	14	82
No	3	-	-	-	3	18
Not sure	-	-	-	-	0	0
Total	9	3	3	2	17	100

Source: Fieldwork questionnaire

To justify the significance of political influence on UA they pointed out that politicians are influential in their communities and they could either promote or stunt the development of the programme. One major reason the respondents cited was that political involvement would facilitate funding of the programme, both at National and Provincial Government levels. Politicians also have the responsibility to develop the welfare of their constituencies⁵ and UA is another way of fulfilling that obligation. Although the majority of the respondents supported political involvement in UA, 18% of them opposed the idea. They pointed out that it would distort the objectives of the programme. It is possible that these respondents interpreted political support as being party political, rather than relating it to policy and facilitation.

Current political support for urban agriculture

The respondents were requested to give their views regarding the adequacy of present levels of political support for UA development. Their responses (Table 5.10) revealed that they were not certain if there was adequate political support. Fifty-eight percent of the respondents mentioned that they assumed there was political support to back up UA, but they had no idea of how adequate it was. Their responses suggest that there is little effective political support.

Table 5.10 Adequacy of political support for UA

Rank	Non-Government Organization (n=9)	Government Departments (n=3)	Private Sector (n=3)	Local Government (n=2)	Total	%
Very adequate	-	1	-	-	1	6
Adequate	-	-	1	1	2	12
Inadequate	3	-	-	1	4	24
No opinion	6	2	2	-	10	58
Total	9	3	3	2	17	100

Source: Fieldwork questionnaire

⁵ These points were mentioned during the interviews.

Forms of benefit from urban agriculture

The respondents were also requested to list the potential benefits of UA. The suggested benefits (Table 5.11) were ensuring food security and employment, improving the nutritional and health status, and the social development and empowerment of urban poor people. Based on the responses, food security is perceived to be the most pressing need that motivates UA development. They also considered that people who would benefit most from UA were the poor and unemployed people, women, elderly people, the sick and traumatized, and young people.

Table 5.11 Respondents' perceptions of the forms of benefit from UA

Rank	Non-Government Organization (n=9)	Government Departments (n=3)	Private Sector (n=3)	Local Government (n=2)	Total	%
Food & food security	7	3	2	2	14	82
Health improvement	3	3	-	1	7	41
Employment & the Income	3	2	1	1	7	41
Better utilization of available resources	2	-	-	1	3	18
Social and self worth empowerment	3	1	2	-	6	35

Source: Fieldwork Questionnaire. (Multiple responses were permissible)

Factors that could discourage the development of urban agriculture

Respondents were asked to list the factors hampering the progress of UA in Pietermaritzburg. Shortages of resources such as land and capital and the lack of technical support were cited as the key factors that could arrest UA development (Table 5.12). Fifty-nine percent of the respondents pointed out that a lack of resources and technical support hampers UA activities. Poor organization within the organizations servicing UA and farmers' groups as well as lack of motivation were also considered as possible hindrances to the development of UA. Twenty nine percent of respondents cited theft of produce as being one of the setbacks suffered by UA.

Table 5.12 Perceptions of factors that could discourage UA

Factors that could hamper UA	Non-Government (n=9)	Government (n=3)	Private Sector (n=3)	Local Government (n=2)	Total	(%)
Lack of resources (land, capital & equipment)	6	2	1	1	10	59
Lack of technical support & farming skills	3	3	2	2	10	59
Lack of motivation and commitment	2	2	1	1	6	35
Poor organization within institutions and farmers' groups	3	1	-	2	6	35
Theft of produce	2	2	-	1	5	29

Source: Fieldwork questionnaire. (Multiple responses were permissible)

Conclusion

The information provided in this section shows that the local organizations have positive attitudes towards UA. This is evidenced by their support for UA. The local organizations' interest in conducting research to explore options of developing UA is also an indication of their positive perceptions of UA. However, the lack of co-ordination within UA servicing institutions, which is crucial for the envisaged organizational framework, is disappointing. The respondents themselves also seemed to have positive attitudes towards UA. They showed both understanding of the UA concept and recognition of its potential benefits for the local people. The natural environment, as perceived by the respondents is conducive to agriculture. All these factors (positive attitudes towards UA, support services, and the natural environment) provide a reasonable base for a viable UA practice. With the problems of population increase in PMB, accompanied by a high level of unemployment (section 3.4), an increase in locally produced food that is affordable is necessary.

5.5 Capacity of local organizations to provide support services to UA

Apart from the organizations' perceptions of UA, the conceptual framework indicated that organizational capacities determine the quality of support services that could be afforded to UA programmes. To establish the local organizations' capacities to support UA, respondents were requested to provide information relating to their organizations' human resource capacity, types of support services, demand for services, financial capacity, and available equipment and facilities. The following section presents the results.

Human resource

Respondents revealed that the institutions they worked for were generally understaffed. More than half of the respondents (59%)⁶ pointed out that their organizations were understaffed, particularly those organizations from the non-government and the local government sectors (Table 5.13). For example, out of the nine respondents from NGOs, six attested that their organizations were under staffed. However, (41%)⁷ of the respondents said that their organizations especially those in private sector, were sufficiently staffed.

Table 5.13 Perceptions in relation to organizations' human resource sufficiency

Human resource Sufficiency	Non-Government Organizations (n=9)	Government Departments (n=3)	Private Sector (n=3)	Local Government (n=2)	Total	%
Well resourced	-	1	1	-	2	12
Sufficiently resourced	3	-	2	-	5	29
Under resourced	4	2	-	2	8	47
Very under resourced	2	-	-	-	2	12
Total	9	3	3	2	17	100

Source: Fieldwork questionnaire

⁶ Derived from adding responses of 'well resourced' and 'sufficiently resourced' (12% and 47% respectively) (Table 5.13).

⁷ Derived from the sum of responses of 'under resourced' and 'very under resourced' (12% and 47% respectively) (Table 5.13)

Level of training

The respondents revealed that most of the people employed in their organizations were appropriately qualified to service UA. Most of the employees from the private sector, local government (Pietermaritzburg-Msunduzi Municipality), and the government departments said that they were qualified with degrees (Table 5.14). Employees, particularly from the NGOs were found to have qualifications ranging from field experience to degrees. From these findings it may be interpreted that despite being understaffed, the organizations have well-trained human resources who have the potential to service UA. Their failure to provide the services as required may be due to shortage of staff.

Table 5.14 Employees' level of training according to the respondents

Employees Level of Training	Non-Government Organizations (n=9)	Government Departments (n=3)	Private Sector (n=3)	Local Government (n=2)	Total	%
Degrees	4	2	2	1	9	53
Diplomas	2	1	1	1	5	29
Certificates	2	-	-	-	2	12
Field experience	1	-	-	-	1	6
Total	9	3	3	2	17	100

Source: Fieldwork questionnaire

Types of services provided by the organizations

The respondents were requested to list the services offered by each of the organizations towards the development of UA. The services encompass (Table 5.15) land leasing arrangements, research to identify UA development possibilities, extension services, financial support, supply of farming inputs, and training programmes to acquire farming skills, leadership skills and social empowerment.

Table 5.15 Perceptions of respondents regarding support services provided by the organizations

Organization	Services
ACAT	<ul style="list-style-type: none">▸ Offers courses in agriculture▸ Provides farmers with farming inputs as part of training programme▸ Offers courses in capacity building
Institute of Natural Resources	<ul style="list-style-type: none">▸ Identifies feasible projects for needy communities, solicits funding for the projects and market▸ Conducts research▸ Offers training at Nansi ndlela farm and also makes available demonstration plots
Farmers Support Group	<ul style="list-style-type: none">▸ Provides extension services▸ Offers training programmes for farmers▸ Provides financial assistance when funding is available
African Enterprise	<ul style="list-style-type: none">▸ Offers courses in business management, craft, agriculture and social empowerment
GREEN	<ul style="list-style-type: none">▸ Links farmers with service providers: services are normally in the form of funding or training
Department of Agriculture	<ul style="list-style-type: none">▸ Provides extension services▸ Funds projects▸ Conducts research and develops appropriate technology to meet the needs of small-scale farmers
Department of Health	<ul style="list-style-type: none">▸ Helps to initiate community projects▸ Provides financial assistance to set up community gardens and teaches people how to administer their funds▸ Funds educational programmes on social development training▸ Offers educational programmes on nutrition, health and food management▸ Helps to set up school gardens
Agricultural Research Council	<ul style="list-style-type: none">▸ Conducts research to improve agricultural production▸ Works with all stakeholders in agriculture with the aim of sharing information & developing the economy through agriculture
Centre for Rural Development systems	<ul style="list-style-type: none">▸ Conducts research▸ Provides extension services through the farmers support group, FSG▸ Trains field officers
Local government	<ul style="list-style-type: none">▸ Provides land (30 year lease) to farmers' groups▸ Provides financial assistance to farmers

Source: Fieldwork questionnaire

All the support services provided (Table 5.15) are necessary to empower the farmers with the required skills and competence. Also noted is that a number of these organizations provide similar services. For an example, the DoA, and FSG provide extension services to farmers. Educational programmes relevant for agricultural development are also offered by various organizations such as CERDES, AE, DoH, ACAT, INR and FSG. Research is conducted by several organizations such as: ARC, CERDES, and DoA. Also, a number of these organizations are involved in funding or soliciting funds for agricultural programmes. Good co-ordination of all the organizations' activities is necessary to improve efficiency, especially given the perceptions of being inadequately resourced.

Service demand

Respondents working for NGOs, Local government and the University revealed that the demand for support services for UA was very high (Table 5.16). However, respondents in government organizations said that the demand for services varied from low to average. The difference in the perception of demand for services could be linked to the extent to which the public is informed about the organizations' services and the contact made with the public.

Table 5.16 Respondents' perceptions regarding the level of services demand

Services demand	Non-Government Organizations (n=9)	Government Departments (n=3)	Private Sector (n=3)	Local Government (n=2)	Total	%
Very high	5	-	1	2	8	47
High	4	-	1	-	5	29
Average	-	1	1	-	2	12
Low	-	2	-	-	2	12
Total	9	3	3	2	17	100

Source: Fieldwork questionnaire

It was also evident that respondents perceive that the organizations’ ability to meet the demand of services to be low. Forty-one percent of the respondents said the organizations’ ability to attend to the requests for services was average, while 35% said it was low (Table 5.17). Twenty-four percent said the ability was good. The respondents (24%) who conceded their organizations were able to meet the farmers’ requests for services were those who said their organizations were not understaffed (section 5.4). Since most of the respondents perceived that their organizations' response to farmers’ requests for services was low, it may be deduced that the demand for support services for UA is higher than the organizations' capacity to supply them.

Table 5.17 Perceptions in relation to organizations' ability to meet services demand

Ability to meet services demand	Non Government Organizations (n=9)	Government Organizations (n=3)	Private Sector (n=3)	Local Government (n=2)	Total	%
Very good	-	-	-	-	0	0
Good	-	2	2	-	4	24
Average	5	-	1	1	7	41
Low	4	1	-	1	6	35
Total	9	3	3	2	17	100

Source: Fieldwork questionnaire

Funding

To find out if the organizations' financial capacities were adequate to support UA, respondents were requested to give information about their organizations’ sources of funds. All the NGOs and the University revealed that they were funded mainly by donor agencies. Some NGOs mentioned that they sometimes receive funds from provincial governments for specific projects. Government departments and the local government are funded by the National government

through the Provincial government. Sometimes their programmes are funded by donor agencies⁶.

Funds' sufficiency and reliability

The respondents in all the organizations when asked if the funds were sufficient and reliable pointed out that generally the funds were insufficient. Respondents from government departments however said that their organizations were sufficiently funded. Seventy-one percent of the respondents, mostly from the NGOs stated that the funds were insufficient and 29% said they were sufficient (5.18).

Table 5.18 Respondents' perceptions in relation to funds' sufficiency

Responses	Non-Government Organizations (n=9)	Government Departments (n=3)	Private Sector (n=3)	Local Government (n=2)	Total	%
Yes	1	2	2	-	5	29
No	8	1	1	2	12	71
Not sure	-	-	-	-	0	0
Total	9	3	3	2	17	100

Source: Fieldwork questionnaire

Despite the reported insufficiency of funds, 94% of the respondents stated that their fund sources were reliable, and only 6% said they were not (Table 5.19). The results indicate that most of the organizations except government departments, do not have enough funds to meet the demand for UA.

⁶ Programmes under poverty alleviation are sometimes funded by the FAO. The respondent from the DoH disclosed this during the interview.

Table 5.19 Respondents' perceptions in relation to funds' reliability

Responses	Non-Government Organizations (n=9)	Government Departments (n=3)	Private Sector (n=3)	Local Government (n=2)	TOTAL	%
Very reliable	2	1	-	-	3	18
Reliable	6	2	3	2	13	76
Less reliable	1	-	-	-	1	6
Unreliable	-	-	-	-	0	0
Total	9	3	3	2	17	100

Source: Fieldwork questionnaire

Equipment adequacy

The respondents were asked to give perceptions regarding their organizations' facilities and equipment adequacy to service UA. Working equipment such as tools and machinery and infrastructure were considered to be inadequate (Table 5.20). Only 12% of the respondents said equipment was adequate, and the rest said it was inadequate. The respondents stressed the need for demonstration farms that would be used for educational and research purposes⁷. Some of the organizations are conducting research with the aim of identifying crops that would best suit the available resources (land) and be marketable.

Table 5.20 Respondents' perceptions regarding equipment adequacy

Responses	Non Government Organizations (n=9)	Government Departments (n=3)	Private Sector (n=3)	Local Government (n=2)	Total	%
More than adequate	-	-	-	-	0	-
Adequate	1	-	-	1	2	12
Inadequate	6	3	2	-	11	65
Not sure	2	-	1	1	4	23
Total	9	3	3	2	17	100

Source: Fieldwork questionnaire

⁷ This was mentioned by some of the respondents during the interviews.

Areas that need to be improved

The respondents suggested several areas that needed to be improved in their organizations to enhance their support for UA. These were human resources (employ more people), funding, equipment, transport, and research. Some respondents mentioned that there was a need to improve the working conditions of staff members and to increase the administrative support to enhance their participation in UA.

Table 5.21 Areas that needed to be improved: perceptions of respondents

Needed improvement	Responses (%)
Human resource capacity	24
Staff recruiting	29
Funding	41
Equipment	35
Transport	6
Research	29

Source: Fieldwork questionnaire (Multiple responses were permissible)

Conclusion

The organizations offer a wide range of support services to UA, but the demand for these services exceeds their ability to meet them. This could be attributed to inadequate capacity, especially given that most of the organizations are under-staffed, do not have sufficient funds, or adequate facilities. However, pooling of the available resources through collaborative action would improve efficiency in service providing, yet this suggestion did not emerge from the responses.

5.6 Organizational collaboration to promote urban agriculture

Since the aim of the study is to establish the prospects for developing an organizational framework to support UA in PMB, a knowledge of existing collaborative work to promote UA or any related development work, and the challenges and ideas of how it could be developed, was considered relevant to this study. Respondents were requested to inform the study about the existing working relationship between organizations. They were also asked to give their views regarding the establishment of an organizational framework to support UA and the possible barriers to this.

Existing organizational collaboration

The respondents were asked if the organizations they worked for collaborated with others in servicing UA. All the organizations were found to have working relationships with others in providing support services to UA and other development initiatives (Table 5.22). Respondents said their organizations engaged others to provide some of the services they did not offer. For example, the local government after settling a land lease arrangement with people interested in setting up agricultural projects, invites extension officers from the Department of Agriculture to assist them with technical advice⁸.

Table 5.22 Responses in relation to existing organizational collaboration

Responses	Non-Government Organizations (n=9)	Government Departments (n=2)	Private Sector (n=3)	Local Government (n=2)	Total	%
Yes	9	3	3	2	17	100
No	-	-	-	-	0	0
Total	9	3	3	2	17	100

Source: Fieldwork questionnaire

⁸ An officer (Mngadi) from the urbanization unit shared this information on a field visit.

Respondents were also requested to rank their organizations' level of co-operation with others in providing services. Forty-seven percent of the respondents said their organizations' level of commitment to the collaboration was good, while 53% said it was poor. They pointed out that, although the organizations collaborate to offer support services, they were not consistent in their operations.

The respondents attributed the causes of the inconsistency in organizational collaboration to a lack of a properly laid out working strategy, poor co-ordination and failure to follow-up on the projects that had been initiated. For example, in the case of Willowfountain, the local government (PMB municipality) and the Department of Agriculture were involved in establishing a community garden for the local youth club. The local government gave this group a piece of land to cultivate and the Department of Agriculture provided them with money for fencing the land and to buy farming inputs. The extension officers from the same department did not offer further assistance in the form of extension services. The young farmers were left to struggle on their own, despite their lack of farming skills. Some of the members were disappointed by the lack of support and pulled out of the club (Dlamini, *pers. comm.*). This case is an indication that the organizations are not sufficiently committed to the existing working partnerships. This may stem from fact that there has been no formal arrangement that has been drawn up to manage and regulate the operations of the organizations' collaborative work, as the respondents pointed out.

Prospects of establishing an organizational framework

To elicit the possibilities for establishing an inter-organizational framework the respondents' views were sought. Firstly, they were asked to state if an organizational framework to support UA was necessary. All the respondents agreed that it was needed (Table 5.23). They were then requested to rank how

important they thought the idea of an organizational framework was. Most (76%) regarded it as being very important while 24% thought it was merely important. To support the idea of the need for an organizational framework, respondents said it would result in a considerable growth of UA.

Table 5.23 Responses acknowledging the importance of an organizational framework

Responses	Non-Government organizations (n=9)	Government Departments (n=3)	Private Sector (n=3)	Local Government (n=2)	Total	%
Very important	7	2	2	2	13	76
Important	2	1	1	-	4	24
Less important	-	-	-	-	0	0
Not important	-	-	-	-	0	0
Total	9	3	3	2	17	100

Source: Fieldwork questionnaire

Respondents were also invited to give their views in relation to the expected achievements of the organizational framework. Some of the responses (Table 5.24) were that a framework would help the development of a UA policy, strategic planning and efficiency of implementation, would avoid duplication of activities, and would provide co-ordination. The responses were consistent with the issues that were identified in the conceptual framework of this study. This shows common understanding of the relevance of the organizational framework, which is a hopeful indication that its establishment would facilitate the desired development in UA.

Table 5.24 Respondents' views of the anticipated achievements of the organizational framework

Anticipated achievements	Non-Government Organizations	Government Departments	Private Sector	Local Government	Total	%
Effective UA development policy	2	2	-	1	5	29
Strategic planning of UA programme	3	1	1	-	5	29
Ensuring effective UA implementation programmes	3	-	-	1	4	25
Avoiding duplication & overlapping of activities	2	2	1	-	5	29
Ensuring sustainability of UA programmes	2	2	1	-	5	29
Providing co-ordination of UA programmes	3	1	1	-	5	29
Securing donor support	3	1	1	1	6	35
Sharing strengths and weaknesses of the programme	2	1	1	-	4	25
Identifying opportunities in UA	3	2	1	1	7	41
Changing mind sets of those interested in w/collar jobs	1	1	-	1	3	18
Enhancing transparency & integration of initiatives	2	1	1	-	4	25

Source: Fieldwork questionnaire. (Multiple responses were permissible)

Identified stakeholders in the organizational framework

Respondents were asked to identify organizations that could be the potential stakeholders in the organizational framework. This is based on the types of services the organizations could provide for UA. The organizations they suggested as possible stakeholders in the organizational framework were those responsible for servicing agricultural development, those concerned with providing social welfare services, health and nutrition development. The suggested list included governmental departments, non-governmental organizations, the private sector and community-based organizations (Table 5.25).

Table 5.25 Respondents' perceptions of possible stakeholders in the organizational framework

Category	Suggested list of organizations
Non-government organizations	Farmer Support Group, AFFRA, ACAT, GREEN, African Enterprise, Valley Trust, Midlands Network and Kwanalu
Government departments	Department of Health, Department of Environmental Affairs and the Department of Agriculture
Private organizations	Local Government, Institute of Natural Resources, Hewletts Aluminium, Media, IDT and farm input suppliers.
Community-based organizations	Farmers' associations

Source: Fieldwork questionnaire

Some of private organizations such as Hewlett’s Aluminum & farm input suppliers are included in the list because they have shown interest in the UA programme. They have sponsored some UA projects that are co-coordinated by the Farmer Support Group.

Lead agency

Respondents were requested to share their views concerning the necessity for a lead agency and the ideal organization to play that role. All the respondents (100%) accepted the idea of the need for having a lead agency to co-ordinate the operations of the organizational framework (Table 5.26).

Table 5.26 Respondents' perceptions of the idea of the need for having a lead agency

Responses	Non-Government Organizations (n=9)	Government Organizations (n=3)	Private Sector (n=3)	Local government (n=2)	Total	%
Yes	9	3	3	2	17	100
No	-	-	-	-	0	0
Not sure	-	-	-	-	0	0
Total	9	3	3	2	17	100

Source: Fieldwork questionnaire

When asked to suggest the organization that could play this role, 47% of respondents said the Local Government (PMB municipality) would be the appropriate lead agency (Table 5.27). To support this opinion respondents pointed out that the Local Government is responsible for the cities' economic development. In addition, the Local Government is mandated by the principles of the Local Agenda 21 to initiate and support development programmes such as UA to improve the welfare of urban dwellers (Bartholomew, *pers. comm.*). However 35% of the respondents pointed out that, the Department of Agriculture is responsible for agricultural development of any kind and it should therefore shoulder the responsibility for the promotion of UA by being the lead agency. Twelve percent, suggested that the local government could engage an NGO with a long serving term to co-ordinate the UA programme. The Independent Development Trust (IDT) and the KwaZulu-Natal Agricultural Forum were also suggested as potential lead agencies.

Table 5.27 Respondents' suggestions for a lead agency

Lead agency options	Non-Government Organizations	Government departments	Private Sector	Local Government	Total	%
The Local Government	5	2	1	-	8	47
Department of Agriculture	4	-	-	2	6	35
Non-Government Organizations	1	-	1	-	2	12
Any government department	-	2	-	-	2	12
Independent Development Trust (IDT)	-	1	-	-	1	6
KwaZulu Natal Agricultural Forum	-	-	1	-	1	6

Source: Fieldwork questionnaire (Multiple responses were permissible)

How would the organizational framework operate?

In order for the organizational framework to operate efficiently and in a co-ordinated manner, a working strategy has to be developed. Respondents were therefore invited to share their opinion in that regard. Table 5.28 presents the list of options and the percentages that indicate the respondents’ choices.

Table 5.28 Respondents’ perceptions of the organizational framework operation strategy

Institutional framework operation strategy	Responses (%)
Team consisting of representatives from all the stakeholders	59
Several task teams to tackle different issues	24
Use of existing forums within the districts that normally deal with community development issues	12

Source: Fieldwork questionnaire (Multiple responses were permissible)

Potential barriers for the organizational framework

The perceptions of the respondents were sought concerning the potential barriers that may disrupt the formation and functioning of the organizational framework. There are as shown in Table 5.29

Table 5.29 Perceived potential barriers for the organizational framework

Suggestions	Non-Government Organizations	Government Departments	Private Sector	Local Government	Total	%
Institutional policies & objectives	2	-	1	-	3	18
Differing opinions concerning the scale and farming options	5	1	1	1	8	47
Lack of Finances	4	2	-	-	6	35
Urban land regulations	3	1	-	2	6	35
Lack of clear vision and definition of roles	3	1	2	2	8	47
Perceptions of UA by organizations	3	1	-	-	4	25
Institutions that may have different areas of focus concerning development	1	-	1	-	2	12
Poor co-ordination of activities	2	-	1	2	5	29
Lack of researched information & qualified people to carry out research	2	1	2	1	6	35

Source: Fieldwork questionnaire (Multiple responses were permissible)

Possible barriers to the establishment of an organizational framework include financial difficulties, poor co-ordination, lack of vision and lack of clear definition of roles. Although they are a threat to the development of the organizational framework, some of them may be solved in the process of establishing the organizational framework. For instance, one of the purposes of developing an organizational framework is to improve co-ordination among the UA servicing organizations. The lead agency that was advocated would also ensure that work is carried out in a co-ordinated manner using a carefully thought-out strategy. Also, urban land regulations should not be a problem since the Local government which is tasked with enforcing such regulations, is already issuing land for UA purposes and it does so after all the concerned departments have approved the site of the project. With regard to lack of qualified personnel to conduct

research, there are several organizations that have qualified people to conduct research and they are already involved in UA. These organizations include the University, the Institute of Natural Resources, and the Agricultural Research Council. Finally, lack of funding is the only serious problem.

Conclusion

The existing working relationship between the local organizations shows their appreciation of the efficiency which can be achieved through working collaboratively. This suggests that the idea of an organizational framework is not far-fetched but already partially operational, although it is not formally established and lacks a guiding policy. As a result, the work is not effectively coordinated and the organizations show lack of commitment. Most of the respondents felt that the organizational framework would operate as a team comprising of members drawn from all stakeholders' constituencies, with local government taking the role of a lead agency. They also envisage that the existence of such an arrangement would achieve the development of an overall UA policy, enhance integration of ideas regarding UA development, and result in sharing of available resources, identify more opportunities in UA, improve coordination of activities, and lead to the sustainable development of UA. The envisaged achievements are consistent with those of the research framework.

CHAPTER SIX

Discussion and Conclusion

6.1 Introduction

This chapter discusses the findings in the context of the barriers that exist to collaboration and presents an analysis of strengths, weaknesses, opportunities and threats (SWOT) for explaining UA in the Greater Pietermaritzburg Area. The final section considers what needs to be done to promote UA. It was postulated that an organizational framework would be required to support UA especially since multiple stakeholder governance seems to be the best approach to create sustainable urban agriculture (Garrett, 2000). To establish the possibility of organizational collaboration, the local organizations' perceptions of UA and their capacities were investigated. This chapter discusses the implications of the findings and draws conclusions.

6.2 Assumptions on organizational collaboration based on findings

Working partnerships already exist among the local organizations. All the local organizations involved in this study were found to have working relationships with others in servicing UA and other development programmes. However, there was no defined system outlining the roles, responsibilities and tasks of the organizations in the way that they related to other organizations. Hence, poor co-ordination was identified as a key weakness of the existing organizational collaboration, confirming earlier observations concerning agricultural support in general in KwaZulu-Natal (Rijkenberg, 2000).

Perhaps because of the problems experienced in initiating and servicing UA, participants in this study conceded that an organizational framework is vital for the development of UA. The established forum to support agricultural development in KwaZulu-Natal (Appendix C) is an indication that the necessity for collaborative work is appreciated. That it appears to be ineffective at providing integrated

support for UA suggests that significant barriers remain that hinder progress. The responses during interviews show clearly that there is no shared vision and mission amongst relevant agencies for UA. Senge et. al. (1999) and other authors (e.g. Wondonlleck and Yaffee, 2000) point to the central role that a shared and internalized vision and mission can play in promoting collaborative endeavors. Clearly there can be no shared vision and mission if there is no organization that holds or bonds individuals together. All three elements, organization, vision, and mission, are prerequisites for strengthening relationships to the extent that collaboration becomes a preferred way of operating.

Overcoming organizational and structural barriers such as building a shared vision and mission and revising policies and procedures to accord with the vision and mission are not sufficient to achieve successful collaboration. Barriers to collaboration also arise from attitudes and perceptions. The analysis of Wondonlleck and Yaffee (2000) on barriers is instructive:

i. Lack of support for collaboration.

"The agencies often retreat to their core activities, and the time and effort needed to build bridges can be seen as nonessential" (Wondonlleck and Yaffee 2000: 63). This study shows that not one of the likely partners that might support UA regard collaboration as a core activity. This contributes to the low priority accorded to UA and consequently its vulnerability in development. Collaborators would need to commit to making UA a core activity if success is to be achieved.

ii. Organizational norms and culture

Each of the potential partners has had a different genesis, and each contributed to achieve outcomes in different ways. Government agencies for example, have quite different norms from a University or an NGO. "Even when the formal objectives of organizations do not conflict, informal norms of behavior, values and traditions lead groups to resist cooperation" (Wondonlleck and Yaffee, 2000: 60). In this study it is

clear that, at least as far as UA is concerned, each putative partner has evolved its own approach. As the partners come together compromises have to be made and these may conflict with the norms and culture that has been established, thus threatening collaboration.

iii. Group attitudes about each other

"Groups form identities and boundaries about a variety of sociological and psychological reasons, and those boundaries keep them apart even when they share common interests" (Wondolleck and Yaffee 2000: 56). The potential partners for collaboration in UA are shown in the study to have quite different identities, even though they may have considerable overlap in their operations. Not only do they have quite different identities, but they also have markedly different disciplinary bias and ways of making decisions that can affect intergroup attitudes. University groups, for example have much greater independence in their operation than do government groups and they are less affected by prevailing political trends. These differences can lead to stereotyping that hinders collaboration.

iv. Mistrust

"A lack of trust" is one common reason cited for failure of strategic alliances in the private sector (Lorange and Roos 1991 cited by Wondolleck and Yaffee 2000: 59). Whilst this study did not consider the extent of trust between the potential partners, the importance of trust is readily appreciated. Apart from the problems that would arise from (i)-(iii) above, South Africa's history is not one that provides a strong foundation for trust. Consequently it is envisaged that building trust would require special effort by the alliance partners. Whilst these barriers may be overcome if a collaborative organization is established to promote UA, it is instructive to consider other factors that determine success or failure.

6.3 SWOT Analysis

In section 2.2 it was recognized that government agencies, private organizations, and communities with similar intentions may join forces to deal with a common interest. Analysis of strengths, weaknesses, opportunities, and threats, which may have an influence on the development of UA and the formation of an organizational framework to support UA, can assist in formulating a strategy for action.

Strengths

These are the properties of alliance partners that are favourable for the promotion of UA.

- ▶ The study has shown that local organizations have an interest in UA. This is evidenced by the support services they provide towards UA development. The existence of a working partnership, a forum, is an indication of their appreciation of the value of collaborative work. The local people too, have shown interest in UA to such an extent that some of those involved in farming have formed associations through which they could promote UA. Collaboration strengthens stakeholder agencies through integration of ideas, capacity building and development of interpersonal and inter-organizational linkages (Wondonlleck and Yaffee, 2000).

- ▶ The local organizations that are considered potential stakeholders in the coalition provide a range of services essential for UA. Research is a service provided by the University, the Agricultural Research Council, and the Institute of Natural Resources. Local government contributes through policies and actions that facilitate making land available for UA. It is also promoting the establishment of an urban agriculture working group to assist emerging urban farmers through soliciting funds and employing other ways of strengthening UA. The Farmer Support Group and the Department of Agriculture are providing extension services to UA.

Weaknesses

These are the properties of alliance partners that do not favour the promotion of UA.

- ▶ It appears that UA does not have a high priority in the strategies of local organizations although they support the idea. This was illustrated by the absence of explicit mandates to service UA in the operation procedures of the organizations (section 5.2). Local government, although supporting UA does not have policy to regulate the operation of UA (see also Ghebremicael, 2000). Considering the scale of need and level of support required in UA, this seriously hinders progress.
- ▶ The local aspiring farmers are poorly educated and have a history of being marginalized. They have poorly developed farming skills and are not equipped for farming.
- ▶ Although perhaps not fully appreciating it, the alliance partners are not empowered to promote UA (see section 6.4).
- ▶ The organizations are also generally under-sourced with finances, personnel, and working equipment.

Opportunities

These are conditions that exist outside of the alliance that are favourable for UA.

- ▶ South Africa, as one of the countries that adopted the Rome Declaration on World Food Security in 1996, committed itself to addressing national and household food security. The government has thus developed a policy framework to support programmes that can effectively support economic growth, contribute to equity and achieve food security for all (Integrated Food Security Policy Framework, 2000). The intentions of UA are covered by this policy. This implies that if UA was holistically conceived and an

appropriate collaborative organization was established, it would become better recognized as a strategy to achieve food security. It would then receive support from various organizations that could facilitate organizational collaboration and action.

- ▶ The informal market is a growth sector for entrepreneurial activity. Pietermaritzburg, in common with many developing world cities, is shown to have an economy in which there are opportunities for small scale, intensive production systems, with marketing at 'farm gate'.
- ▶ Urban agriculture offers an opportunity for the productive use of land on land (open spaces, flood plains, wetlands etc) not suitable for habitation. Promoting UA can therefore assist local government to achieve land management at reduced cost.
- ▶ By addressing the national and international priority of food security, members of the collaborative partnership can build support for their efforts by working political channels to educate and influence elected officials (Wondolleck and Yaffee 2000: 204). This would assist local government by securing grant funding thereby enabling the government to address other pressing needs.

Threats

These are considerations that exist outside the alliance that have potentially negative consequences for UA.

- ▶ The liberalization of free international market system will create a very stiff competition for the poor urban farmers who lack sufficient production resources and expertise. Retailers have the right to do business with suppliers of their choice in consideration of the quality and price of goods.

To cope with international standards, more fiscal resources might be needed. This may not be possible since the local organizations already lack fiscal resources.

- ▶ HIV/AIDS is also a serious threat to all forms of development including UA. There is a possibility that organizations might lose skilled personnel to this scourge, and this could destabilize UA development.
- ▶ Councilors are not well informed about UA and the opportunities it may offer local residents. They lack focus of prioritized needs of people in their wards. There are cases where councilors have mobilized the local government to install electricity in areas where people are so poor that they have insufficient food, poor housing, and inadequate access to sanitation (Mngadi, *pers. comm.*). To overcome this weakness, some of the stakeholders need to be educated to enhance their ability to prioritize needs. This would help bring all stakeholders bring development into perspective.

6.4 Organizational strengthening

The framework developed to describe the system and to expose underlying assumptions (page 23) indicated that UA is complex, requiring integrated effort on behalf of various actors. This is because local government policies regulate land use in the urban environment and the people who can perhaps benefit most from urban agriculture are poorly educated and under resourced. Effective extension is therefore essential. Not only should all of these problems be addressed, but they have to be addressed simultaneously, through joint commitment, and the sharing of skills and resources. Co-operation is required to achieve the necessary levels of collaboration.

The results show clearly that, whilst there is some degree of shared vision and mission, there is inadequate understanding of what needs to be achieved, this

notwithstanding the establishment of a forum that is to promote collaboration for the promotion of agriculture. It is also evident that UA has a lower priority within the forum than conventional commercial agriculture. This informs us that the collaborating partners need to develop a joint policy and mission that is to direct their endeavors. If this is to bring about new behaviors, this vision and mission has to be internalized (Senge *et al.* 1999). But this alone is not enough, the individuals have to feel that they are empowered to promote UA. The results show clearly that at present, they do not feel that they can be effective.

Cook (1997) has developed a framework that is helpful in determining the types of issues that the partnership would have to address. He recognizes three dimensions of empowerment: objective, subjective and competency.

Objective empowerment describes a situation where organizational operations adopt a participative approach in management, expose employees to challenges to master their work and participate in decision making, and give control over career development destiny. It also requires clarity of organizational goals and definition of their roles (Cook, 1997). The workers are empowered to be creative, accept challenges and cope with the demands of their work. Poor co-ordination stemming from lack of clarity of organizational roles has been pointed out to characterize the present organizational collaboration in PMB. Establishment of an effective organizational framework requires a policy to define its goals and allocation of roles for all stakeholders. Objective empowerment is therefore crucial for the success of collaboration.

Cook describes subjective empowerment as an individual's confidence to undertake certain tasks. Motivation and efficiency are the key aspects. It is the inner power that drives a person to achieve goals (Cook, 1997). In view of the poor performance of organizational collaboration despite an understanding of its necessity and potential benefits to UA, it is assumed that this is another aspect of

empowerment that is lacking in the local organizations. This was also noted in the farmers' behavior. They quit farming if they do not receive external support. This indicates lack of self-motivation and confidence in their abilities.

Empowerment in competence is influenced by skills, knowledge, and attitudes required in performing certain tasks successfully. This is a primary ingredient that is acquired through training or practice (Cook, 1997), to perform any task. This is one aspect of empowerment that was considered prevalent within the organizations, since the employees were said to be well trained for their jobs. Conversely, it is not certain how well the employees in these organizations understand collaborative work. The development and sustainability of UA through the use of an organizational framework obviously requires all the dimensions namely competency, objective and subjective empowerment in the case of both farmers and organizations.

This discussion has shown the need for the partners in a collaboration to acknowledge that they need to be empowered. This contrasts with the tendency to believe that it is only the poor who are the targets for empowerment in UA. In fact, this research suggests that it is precisely this level of empowerment that currently hinders progress. Cook's model also exposes another issue of critical importance. Earlier in this chapter when considering barriers to collaboration, it was suggested that there may exist in the present strategic alliance, attitudes that weaken the empowerment of potential partners. Attitudes such as 'we are in control' or 'we know best' serve to weaken self-confidence, reduce opportunity to contribute and even restrict development of competencies. The challenge of making collaboration work should not be underestimated. Collaboration is difficult because of the many factors that determine individual attitudes and behaviour (Wondonlleck and Yaffee 2000).

6.5 Organizing to promote UA

It emerges from this study that whilst there is a forum that could co-ordinate UA, it does not function to do so. Members of the forum have what might be termed a 'latent' interest in UA, and this could be used as the platform on which to build the necessary collaboration. Earlier sections of this chapter have exposed some of the challenges that face the forum in achieving the behavioural responses that are necessary prerequisites for acting together with shared resources and knowledge. It was also shown that the extent of need greatly exceeds present allocation of resources. In addition, because of the considerable needs in other areas created by years of apartheid, it is unlikely that we can anticipate greatly increased allocation of resources to UA. The forum will therefore, have to focus on raising the efficiency of service delivery. To achieve this, the forum will have to acknowledge the complexity of achieving collaboration amongst partners that have quite different norms and cultures, and that are generally rather poorly resourced in human and financial terms. They will have to acknowledge that they are not presently empowered as either individuals or organizations to be effective.

Bearing in mind that a forum with interest in promoting UA does exist, the question that arises is what should the forum do? Eight suggestions are made (Figure 6.1):

- ▶ Realize that leadership is essential. What is required is for one partner to accept the role of and be acknowledged as, the lead agent. With this will come direction and accountability;
- ▶ Develop and internalize a shared vision and mission. It is clear from this study that such vision and mission for UA as presently exists, is neither shared nor strongly internalized. As a result, it does not direct behaviour sufficiently strongly to mobilize energy and direct it to the promotion of UA;

- ▶ Obtain mandates for UA as a core activity for each partner, and for the forum;
- ▶ Use the mandate to seek to strengthen of the resource base, particularly to empower participants that are to accept responsibility and be accountable for progress;
- ▶ Acknowledge the complexity and challenge of collaboration and be committed to it;
- ▶ Acknowledge the complexity of UA and use frameworks (models) to explain this and to expose assumptions. The use of a framework in this research illustrates the value of doing so;
- ▶ Implement an adaptive management approach so that the forum acts as a learning organization (Senge *et al.* 1999); and
- ▶ Identify information and research needs and act to improve competencies.

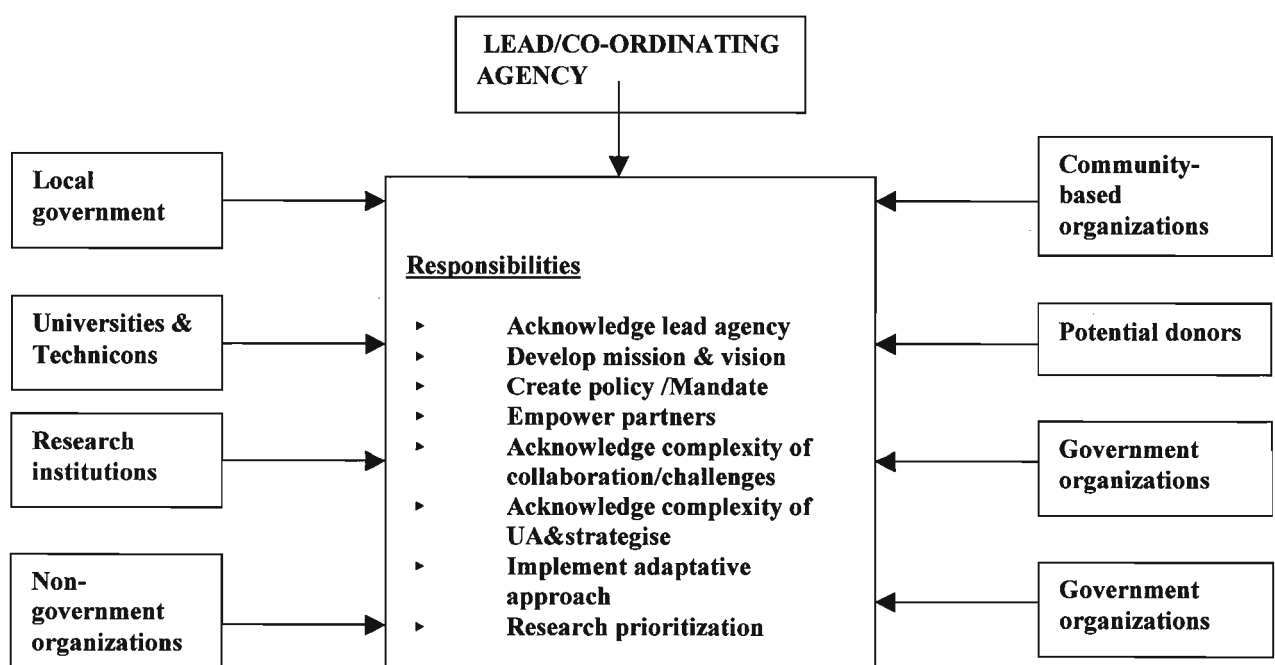


Figure 6.1 A proposed structure of the organizational framework

6.6 Conclusion

The research framework was helpful in identifying the need for an organizational framework to support UA and other development initiatives. The framework also hypothesized that organizational frameworks could be poorly co-ordinated, which may be the reason why they fail to efficiently deliver so that the full potential of UA is not realized. The findings show that the existing organizational frameworks operate in an unco-ordinated manner and lack a clear vision of purpose. This indicates that organizations are not adequately prepared to undertake collaborative action. Seemingly, organizations' approach to collaborative work does not take into consideration the complexity and challenges involved as Wondonlleck and Yaffee (2000) observed (section 6.2) and the approach fails to acknowledge the need for empowerment of service providers in addition to those whom these agencies intend to support. The right approach would be acquiring organizational and individual empowerment (objective, subjective and competency) recommended by Cook (1997). It is envisaged therefore that, adequate empowerment of the organizations would lead to a well developed and sustainable UA practice. Such empowerment needs however, to be contextualised within a shared vision, mission and operation plan. Mental models (Senge *et al*, 1999) are helpful in developing and sustaining organizational frameworks.

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APPENDIX A

10 November 2000



CENTRE FOR ENVIRONMENT & DEVELOPMENT

University of Natal • Pietermaritzburg
Private Bag X01 • Scottsville • 3209 South Africa

Telephone: +27 (0)33 260 6223
Facsimile: +27 (0)33 260 6118

eMail: secenvd@nu.ac.za
Website: <http://www.cead.unp.ac.za>

Dear Sir/Madam,

I am a student at the University of Natal's Centre for Environment and Development (CEAD). I am conducting a research as partial fulfilment of a masters degree programme under the supervision of Professor C. Breen of CEAD and the Institute of Natural Resources.

This research is a progression of a study by Ghebremicael that was conducted in the Greater Edendale Area of Pietermaritzburg in January 2000. His study of the economics of urban agriculture established that urban agriculture has the potential of improving the livelihoods of urban poor people by improving food security and generating income. Problems such as lack of funding, land and extension services were identified as barriers to the success of this programme.

My research seeks to establish perceptions of urban agriculture among local organizations. It will also reflect on the possibility of inter-organizational collaboration to support the development urban agriculture in Pietermaritzburg.

In soliciting your participation, I assure you that the information you will provide will be confidential unless you agree otherwise.

Your cooperation will be highly appreciated.

Yours faithfully

Zodwa Ndlela



APPENDIX B

My name is Zodwa Ndlela, a student at the University of Natal's Centre for Environment and Development. The main intention of this research is to determine the possibility of establishing an organizational framework through which the local organizations in Pietermaritzburg could operate to support urban agriculture (UA). Responses to the following questions may be answered by ticking in the tables or boxes provided. In the case of open-ended questions, the ideas of the respondents shall be written in the spaces provided.

Questionnaire to institutions

Name of organization.....

Address.....

Particulars of respondent

Name.....

Designation.....

Contact.....

Date.....

PART A

A. Perceptions of urban agriculture

1.1. Do you understand what urban agriculture is?

y	n
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1.2 If yes, please give your definition of UA:

.....

.....

2.1 Do you have any experience in UA?

y	n
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2.2 In what way have you been exposed to UA?

Practise	
Field work	
Training	
Observation	
Literature	

3.1 How would you categorize your organization’s attitude towards UA?

Strongly supportive	
Supportive	
Neutral	
Not supportive	
Not sure	

3.2 Justify your choice

.....

.....

.....

4.1 How would you categorise the attitudes of the people in your organization towards urban agriculture?

Strongly supportive	
Supportive	
Neutral	
Not supportive	
Not sure	

4.2 Justify your choice

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5.1 How would you rate the feasibility of UA in PMB/GEA?

Very feasible	
Feasible	
Neutral	
Less feasible	
Not feasible	

5.2 Give an explanation for your choice

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5.3 What types of UA might be more feasible in PMB?

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6.1 How would you rank the attitude of the farmers towards UA?

Strongly positive	
Positive	
Neutral	
Negative	
Strongly Negative	

6.2 Justify your choice

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7.1 Is political support necessary?

y	n
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7.2 If yes, could you give reasons why?

.....

.....

.....

7.3 How adequate is political support for urban agriculture in Pietermaritzburg at present?

More than adequate	
Adequate	
Inadequate	
No opinion	

8.1 Do you think people can benefit from UA?

y	n
---	---

8.2 If yes, what would be the benefits?

Food		Food security	
Create employment		Income generating	
Relaxation/recreation		Self worth/pride	
Health improvement		Crime reduction	
Other.....		

9.1 Can you identify factors which (may) restrict UA in the area?

Funding		Equipment	
Land		Technical support	
Interest/motivation		Management skills	
Stealing of produce		Commitment	
Output (yield)		Training	

9.2 Please provide reasons for your choice;

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PART B

B. The capacity of local organizations to support UA

1. Does your organization have sufficient human resource to support UA?

Well resourced	
Sufficiently resourced	
Under resourced	
Very under resourced	

2. What are their levels of training?

Degrees	
Diplomas	
Certificates	
Field experience	
Other	

3. Which of the following services does your organization provide to support UA?

A. Land

Highly possible	
Possible	
Less possible	
Impossible	

B. Financial aid

Highly possible	
Possible	
Less possible	
Impossible	

C. Extension service

Highly possible	
Possible	
Less possible	
Impossible	

D. Extension service

Highly possible	
Possible	
Less possible	
Impossible	

E. Farm inputs (seeds, fertilizer & chemicals)

Highly possible	
Possible	
Less possible	
Impossible	

F. Training

Highly possible	
Possible	
Less possible	
Impossible	

4. Please supply the following information regarding the capacity of your organization to provide the necessary services towards UA?

A. How would you describe the demand for extension services for UA?

Very High	
High	
Average	
Low	
Very low	

B. How would you rank your organizations’ ability to meet this demand?

Very good	
Good	
Moderate	
Poor	
Hopeless	

C. Who funds the operations of your organization?

Donor agencies		National government	
Provincial government		PMB-TLC	
Internal budget		Other	

D. Are the funds sufficient?

Very well supplied		Sufficient	
Less Sufficient		Insufficient	
Very insufficient		Other	

E. Is the source of funds dependable/reliable?

Very reliable		Reliable	
Less reliable		Unreliable	
Very unreliable		Other	

F. Is the source of funds sustainable?

Very sustainable	
Sustainable	
Unsustainable	
Not sure	

G. Does your organization have the equipment needed to support UA?

y	n
---	---

H. Does it have facilities such as offices and computers, allocated for the support of UA?

y	n
---	---

I. Are these facilities adequate for the UA activities?

Very well adequate	
Adequate	
Inadequate	
Not sure	

5. In order for your organization to adequately service UA, which of the following areas would it need to improve?

Human resource	
Staff training	
Funding	
Equipment	
Transport	
Other	

6. What other factors do you think would hinder your organization from supporting UA?

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PART C

Possibility of developing an organizational framework

1. Does your organization collaborate with others in promoting agricultural activities?

y	n
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1.2 If yes, how would you rank your organization's commitment to this collaboration?

Very good	
Good	
Weak	
Poor	
Very poor	

2.1 How would you rate the importance of an organizational framework to support UA in Pietermaritzburg?

Very important	
Important	
Not important	
Not sure	

2.2 If you think it is important, what should this organizational framework strive to achieve?

Formulate an effective UA development policy	
Facilitate a strategic plan of the UA activities	
Facilitate coordination of the UA activities	
Ensure an efficient implementation of the UA programme	
Avoid duplication of the UA support services offered	
Enhance sustenance of the UA activities	
Support the UA activities	
Provide the services necessary to practice UA	
To secure the support of donor agencies	

Others:

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3. If an organizational framework would be developed, could you identify the potential stakeholders?

Stakeholders	
Pietermaritzburg-TLC	
University of Natal	
Institute of Natural Resources	
CBOs	
NGOs	
Provincial Government Departments	
Private organizations	

Others:

.....

.....

.....

.....

4.1 Do you think a lead agency to coordinate the organizational frameworks' activities would be necessary?

y	n
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4.2 If yes, which organization/s do you think would be suitable for the leading role?

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5. Can you identify some barriers to organizational collaboration initiative to promote UA?

Organizational policies and aims	
Political commitment of leaders	
Communication	
Financial implications	

6. How do you suppose the organizational framework would operate?

Team consisting of representatives from all the stakeholders	
Several teams to tackle different issues	
Use existing forums that normally deal with community development programmes	

7. In your opinion what would be the potential barriers of the organizational framework?

Organizational goals and policies	
Financial implications	
Urban land regulations	
Lack of information regarding collaboration	
Different areas of focus	
Other	

8. What are your personal views regarding the development of an organizational framework to support UA in Pietermaritzburg?

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Thank you for your contribution to this study.

APPENDIX C

KWAZULU-NATAL AGRICULTURAL DEVELOPMENT FORUM

BACKGROUND

Introduction:

The KwaZulu-Natal Agricultural Development Forum has its origins from meetings held by various agricultural service providers during the period from November 1999 to May 2000. The objectives of these gatherings were to bring as many interest parties together, mainly agricultural consultants and NGO's to discuss matters of mutual interest and to pave the way forward for the establishment of a body that would tackle issues of mutual interest within the agricultural development industry.

Participants identified as number of problem areas that required some kind of joint effort by players in the industry to overcome. These included amongst others:

- A lack of acceptable norms and standards within the profession
- A lack of delivery generally by the state and other players
- A lack of investment in agriculture and funding for rural development initiatives
- An unhealthy climate of suspicion, bordering on hostility between players within the industry
- A vacuum of skills and expertise in certain areas such as agri-business and marketing

There was consensus within the group around a number of issues, these included:

- There exists within the province a considerable agricultural potential and there was agreement that a better co-ordinated delivery structure needs to be put into place and considerable will exists to achieve this.
- Greater effort needs to be put into securing investment in agriculture and poor rural communities
- Support needs to be given to previously dis-advantaged individuals and consultants, to put them in a better position to compete effectively
- An environment of understanding and mutual respect needs to be created amongst players within the sector
- Norms and standards of acceptable service delivery need to be established
- There exists a need to share information, strengthen local capacity and improve working relationships

Interim Executive

An interim executive was elected at the second meeting of the group, to formulate objectives, draft a constitution, put forward proposals on membership and mapping the way forward for the forum. The members of the executive include:

Dr. Patrick Sokhela (Chairperson)
Dr. Phiwase Dlamini
Mr. William Urquhart
Mr. Martin Sibisi

INR
University of Zululand
Department of Agriculture
ACAT

Mr Richard Dladla
 Ms Oona Hlela-Mwanyama
 Prof. Frits Rijkenberg
 Mr Vincent Neussl
 Ms Monique Salomon
 Mr Duncan Stewart

Zakhe Training Inst
 Isineke Developments
 University of Natal
 Diocese of Mariannhill Rural Development
 Farmer Support Group
 LIMA

The Forum's Objectives

1. To promote agricultural development in KwaZulu-Natal through good practice and professionalism and through the development of our members skills.
2. To effect linkages between NGO's, agricultural consultants and the Department of Agriculture
3. To assist the Department of Agriculture by researching key issues that have the potential of adding value to agricultural development and informing policies in the Province.
4. To create an environment which is conducive to co-operation and effective delivery
5. To promote effective delivery to and sharing of information with farmers

The Forum's Role and Activities

The executive has identified three types of activities that will be the focus of the forum over the next two years. These are:

1. Drafting and ratification of founding documents such as the constitution and a code of conduct and good practice document
2. The hosting of bi-annual conferences on topical matters with local and foreign guest speakers
3. The setting up of task teams to investigate certain key issues that have been identified as critically important to rural development.

Six Key Issue Task Teams

TEAM	Convenor
1. Land Reform and Farmer Settlement	LIMA - Dave Thompson
2. Agriculture Extension, Training & Education	DoA Ladysmith Theo van Rooyen
3. Sustainable Farming Systems & Food Security	CERDES/FSG Prof Frits Rijkenberg
4. Agri-Business, Investment & Marketing Hastings	INR - Patrick Sokhela/Hugh
5. New Product Development	INR - Patrick Sokhela
6. Farmer Institutions	ACAT - Martin Sibisi