URBAN POLICY IMPLICATIONS OF ENHANCING FOOD SECURITY IN AFRICAN CITIES/CREDIT AND INVESTMENT IN URBAN AND PERI-URBAN AGRICULTURE.

SURVEY OF CITY EXPERIENCES WITH CREDIT AND INVESTMENT FOR URBAN AGRICULTURE INTERVENTIONS.

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CASE STUDY: GABORONE CITY, BOTSWANA.

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PART 1. INTRODUCTION : BACKGROUND.

Botswana is a large country (582,000 km^2) with a small population (1.5 million in 2001). It is considered an upper middle class income country, as classified by the international financial institutions, with a per capita GNP of about US$4,100 in 2001.However, in spite of this rosy picture, poverty has also been endemic. While poverty in Botswana is predominantly rural, the rate of urbanization (at 8.4% per annum) is the highest in Africa, and marked rural migration has led to increasing concern about social and physical changes in urban areas. In 1997, the UNDP reported that 20% of the people living in urban areas in Botswana were considered 'poor' and 9% 'very poor'. In Gaborone, 20% of the total population is poor and 7% are very poor.

One of the safety nets adopted by the poor has been urban agriculture(UA) either as a means of survival or to supplement low incomes. On the other hand some entrepreneurs have opted for UA and Peri-UA as a means of making money. Such activities are widely practiced in and around the city of Gaborone and in the peri-urban villages and freehold farms surrounding the city.

Sufficient land resources suitable for arable agriculture exist, but low and erratic rainfall, endemic droughts, and uneven distribution of land resources severely hamper rain fed crop production. At the same time, irrigated agriculture is constrained by uncertain and scattered watered resources, low borehole yields and stiff competition for water from other sectors.

The contribution of Botswana's agricultural sector is at present of minor significance to the macro-economic structure of the country (3.1% of the GDP). Hence, from the macro economic point of view, neither agriculture in general nor arable agriculture production in particular, can be regarded as a priority sector. However, its national significance stems from: -

(a) The country's policy of assuring food security at both the household and the national levels,
(b) The fact that it provides about 20% of employment generated within the country,
(c) The fact that about 50% of the total population resides in rural areas,
(d) The fact that about half of this population depends on arable farming for its income.

Over the years the Ministry of Agriculture (MoA) has put in place a number of agricultural development programmes aimed at promoting the sector by providing an enabling environment for farmers and produces. Such programmes include the Arable Lands Development Programme (ALDEP), Accelerated Rain fed Arable Programme (ARAP), Service to Livestock Owners in Communal Areas (SLOCA), Bull subsidy Scheme, Artificial Insemination, Agricultural Extension Fund no. 10(AE10) and other agricultural projects funded under the Financial Assistance Programme (FAP).

The success of these programmes in transforming the sector to meet the agricultural policy objectives has been minimal, mainly because there were no monitorable sector-wide strategies and implemental plans.

The intention of this research paper is to look at access to credit and finance for those who practice UPA. This is an area that has been forgotten for a while. For this study a case study of Gaborone has been prepared. The study starts off by presenting: (a) general description of UPA in Botswana and Greater Gaborone, the case study area (b) An outline of the experience of credit and investment for urban agriculture intervention identifying its strengths and weaknesses in its implementation, (c) gender and actor analysis (d) Mechanisms for up scaling (e) lessons learnt and finally it ends by (f) examining local sustainability and replicability of these mechanisms.

Methodology

In carrying out this study the researcher used various tools. The background and nature of the practice of UPA in Gaborone was obtained through secondary data sources. In essence the task was accomplished through desktop literature review of both published and unpublished reports, books and other researches in the subject area. Information on the actual practice of UPA, characteristics of participants and other stakeholders was carried out through two methods: (a) A household survey was carried out using a questionnaire to obtain information on characteristics of the participants(small scale, medium and large scale), their gender, level of incomes, activities carried out, people employed and incomes from the activities. (b) Focus group meetings were held with all relevant stakeholders to obtain vital information on funding, intervention mechanisms, problems encountered etc. The stakeholders included inter alia, representatives of the Ministry of Agriculture, Ministry of Finance, Development and Planning, Ministry of Lands, Housing and Environment, Gaborone City Council, NGOs, banks etc. Lastly, the researcher toured various areas where UPA was and is still being practiced to get a first hand experience and impression of the various activities which include poultry farming, beef and dairy farming, arable farming, horticulture, growing of flowers and other ornamental plants.

Urban Agriculture in Botswana: A Literature Review

Up to now hardly any research has been done on urban agriculture, urban food production or more importantly the financing of UPA in Botswana. The only known works are those by Byerley A. (1996) who did a small research work on urban agriculture in a neighborhood of Francistown. The major finding of his study is that urban agriculture is not employed to any significant extent in Francistown due to a number of reasons including the harsh climate, lack of water/or too expensive water, tight urban planning regulations, cultural/attitudinal factors, relative poverty, recent urbanization and the preference to do cultivation in the rural areas.

The second are two studies on urban agriculture done by Mosha A.C. (1995 and 2001) who found in his research that urban agriculture is one of the survival strategies adopted by the urban poor. Again, it was found that the people, due to the same reasons as those advanced by Byerley above, practiced little agriculture. However, in addition, it was also found that the presence of a number of safety nets provided by government have encouraged people to just sit by and wait for public help in the form of subsidies and hand outs.

The third is a research by Mpuchane S. and Baashwana B (1992) on Street Foods in Botswana, which found that street food vending, is slowly entering the urban arena, but the food is not being handled in a very hygienic manner. In their study they found that the situation is quite different from the pre-independence days when food vendors were peddling agricultural produce. These were small farmers from villages around towns, but today, the vendors are from the urban centres. They usually prepare food to sell to people working in both industrial and construction sites. These people make quite a bit of money to supplement their incomes, and for some, this is the only form of income for them.

The latest study is that done by G. Matsila (1999) on the practice of UA in Jwaneng town in which she finds that " …it is a viable survival strategy that the urban poor are beginning to engage in, though the numbers are still small". She points out that.."urban agriculture should be encouraged and assisted in raising the standard of living of the low income in urban areas".

Other writings peripheral to this subject are those by Kruger(1992) who observed that food was very expensive in the urban areas of Botswana and Feddema(1990), Wikan (1993) and Hesselberg(1993) who found that there is high propensity for multi-activity as a method of assuring food security in Botswana. They too found that there was hardly any urban agriculture in the urban areas of Botswana.

On the other hand, however, a lot has been written on rural agriculture by many authors among who are Wikan (1993) and Hesselberg(1993).

1.1 THE RELEVANCE OF URBAN AGRICULTURE IN BOTSWANA

Currently, the scale of cultivation taking place in urban Botswana is very small as compared to other developing countries. Only limited agriculture is practiced in the form of keeping small livestock, chicken, piggeries or arable farming practiced in a very small scale in

residential areas or much larger activities along river valleys traversing the major towns or on the many freehold farms found in peri-urban areas. In and around Gaborone, the capital, however, private individuals have started a few projects and they seem to be doing well as will be detailed later in this research paper. However, the vast agricultural practices found in major cities in the sub-region like Nairobi, Dar es Salaam or Harare, are never experienced in Botswana's urban areas.

The key explanation for the undeveloped urban agricultural sector is the greater returns to land and labour which may be earned from back shacks and alternative informal income opportunities in the urban centres, the harsh climate, attitudes against agriculture, inflexible planning laws and regulations and many more other reasons. Informal cultivation is primarily a survival niche of the most marginalised and mostly vulnerable groups in the urban areas, in particular for single or elderly women.

Several factors in recent years however, have led to the relevance of urban agriculture in Botswana. Among these are:-

(a) A Declining national economy

In spite of vast revenues from the country's minerals of diamond and copper and from the beef industry, government pronouncements and reviews of the economy done by various experts of late have painted a picture of declining economy, food insecurity, declining employment opportunities and declining domestic savings. In a recent study carried out by the author on Urban Poverty it has amply been demonstrated that urban poverty is already present and rising fast. Unemployment and under employment is rising fast with the decline in the building and manufacturing industries whereby, following the end of apartheid in South Africa, a substantial number of companies have closed shop in Botswana and settled across the border leaving a trail of unemployment and struggling families.

(b) Rising Rural Urban Migration

There is a steady drift of rural people to the towns. In most cases these people cannot enter the job market immediately, so they add to the plight of those who are overtly stricken and can only make a living through the informal sector activities like agriculture.

(c) Rising population growth and urbanisation

Botswana has a relatively homogeneous population. The population in 1991 was 1.3 million, corresponding to roughly 2 persons per km ^{2}. In 2001, the population had reached

1.7 million (GoB/CSO 2001). The rate of annual population increase, at approximately 3.5%(1981-91) and 2.39%(1991-2001) is among the highest in the world. Urbanisation is proceeding rapidly, but from a modest base. Most towns have been doubling their populations every ten years. In 1981 18% of the population lived in urban areas and this had risen to 33% in 1991. Gaborone, then had a population of 134,000; Francistown 65,244; Lobatse 26,052; Selebe Phikwe 39,772; Jwaneng 11,188; Sowa Town 2228 and Orapa 8827. The major villages had populations in excess of 20,000. These include: Serowe with a population of 30,264; Mochudi 25,542; and Molepolole 36,930 . (GOB 92). A majority of the urban population lives in self-help housing areas or informal settlements with limited facilities, limited employment opportunities and low incomes.

(d) Rise in female-headed families.

The 1985/86 Household, Income and Expenditure Survey, revealed that 42% of all urban households were headed by a female; in the rural areas, the percentage was 46%. Data from the 1991 census reveals that the number of female-headed households has further increased to 49% nationally (GOB, 1993). These households are generally poorer than male-headed households, the latter having 2.6 times as much earning power compared with women in urban areas are in rural areas the ratio is 1.8.

(e) Urban Unemployment.

Evidence from many studies shows that there is a serious urban unemployment problem affecting substantial numbers whose permanent houses lie outside the country's towns. The 1991 Census figures show the following: The unemployment rate in urban areas was 12.7 on average ranging from a low of 6.0 in Jwaneng to a high of 17.6 in Francistown followed by Lobatse 14.8. The total economically inactive population was 60,483, again with Francistown having the highest 26,573, followed by Lobatse 14,026. The lowest were Sowa, 262 and Jwaneng, 1,875. Of the total economically active population of 60,483, students were 34,982. If we include the "urban" villages in this group, then the unemployment rate goes up from 12.7% to 15%, with that of males being 12.1% as compared to that of women of 18.9%

(f) Drought.

Successive droughts since Independence (i.e.1968-70; 1979/80; 1981/82 - 87/88 and 1992/93) have forced a number of people to move to urban areas in search of employment and better life and most of these people have never made it. The only option made is to engage in informal activities like peddling of goods, urban agriculture and such like activities.

(g) Urban Poverty

Despite a programme of sustained public investment in social sector development, resulting in public expenditure ratios between 32% and 44.5% in each of the past 10 years, well over 40% of the people of Botswana are still reported to be living below the Poverty Datum Line, a proportion that appears to have increased rather than decreased over a decade of high GDP growth. Again, recent surveys have shown a disturbing disparity in the distribution of national assets and income, with the top 20% of the population earning almost 24 times as much as the bottom 20%. (GOB/UNICEF/UNDP, 1993 Report.). Obviously such poverty is a cause of concern both by the people and by the government itself.

(h) Government policy on Food Production.

In Botswana, up to 1991, the government had been committed to a policy of achieving domestic food self-sufficiency that is, producing its own food requirements in Botswana. But, this policy was changed to a new policy of Food Security, i.e. obtaining enough food for its own requirements due to poor production from its limited fertile land, harsh climate and of course because the government has the resources to buy food from outside its borders. However, although the government can achieve food security, household food security is not guaranteed due to poverty among the low income. These people have to seek for ways to feed themselves.

(i) Legal Urban Planning Regulations and their effect on urban agriculture.

Although for quite some time urban agriculture was shunned by town planners, who mostly used western planning ideals, as incompatible with urbanisation and an activity fit for the rural areas, the new concept of sustainability of urban centres as propounded by the UNCHS and other agencies has helped to change this attitude a little.

Following the revision of the strict 1978 Development Control Code in 1995, some forms of agriculture have been allowed and encouraged in urban areas. According to the Development Control Code of 1995, Section 1.2.5, Out Buildings are allowed in residential areas for keeping poultry, pet animals and growing of plants for personal use. The combined floor area for such structures should not exceed 35 sq.metres.

Since then new efforts towards this activity have been consciously made in designating specific areas and the necessary extension services for this activity. Both in the dam site plots and the Glen valley area of Gaborone, owners are given land tenure rights.

On the *private* side, a few attempts too can be seen. NGOs and the Women's Affairs Unit, of the Ministry of Home Affairs, have helped in getting land less women households get started in urban agriculture at the Segoditshane horticultural plot to earn some sort of living. Again, SANITAS (a private commercial horticultural centre in Gaborone) for example has developed a range of technologies relevant to the increased productivity in urban cultivation in Botswana. As also noted by Byerley (1996), these have already been incorporated at the Segoditshane site with a certain degree of success. Such technologies have also been suggested as being of wider potential for Botswana's urban squatter and low-income areas as a whole.

From the above observations and assessment, it is clear that there are several factors that point to the need for urban agriculture as a survival strategy for the poor.

PART 2. URBAN AND PERI-URBAN AGRICULTURE: A CASE STUDY OF GABORONE CITY.

Introduction. : Background

Having looked at the experience of urban agriculture and food production at national level, it is an opportune time to examine what is happening in the city of Gaborone as a case study.

The city of Gaborone, with a population of 225,000 in 2001, has grown from a very small village to the capital of Botswana in a period of less than 36 years. Attention has been given to how careful design of master plan concepts has shaped the city and responded to the needs and aspirations of the residents. Through appropriate and enabling urban development policies, standards and codes, a very amenable environment has been created. The city can boast of adequate and modern civic and commercial centres; modern functional infrastructure including water, electricity, roads and sewerage systems; adequate housing provided by both the public and the private sectors and for the low income, the adoption of a very successful program of squatter upgrading and self-help housing. Through careful management and development control practices, city growth has been contained quite well in spite of rapid development and the future of the city looks quite bright.

Physical Features

In a study of urban agriculture, it is important to assess the physical features, which do play a part in determining the type and form of areas suitable for agriculture and the

potential of the space available. This review covers topography, climate, soils and vegetation of Gaborone

Topography.
Gaborone lies at latitude 21 09^0 South and 27 29^0 East. The city is situated on a vast plain at 968m above mean sea level (AMSL) with low relief and rare isolated hills. Kgale Hill is a granite outcrop, which rises to 1220m AMSL. To the north of Gaborone is Oodi Hill also granite outcrop 1170m AMSL. To the west are the Gaborone Hills, which rise to 1190 AMSL and are situated at the head of the Segoditshane River.
The Notwane river valley dissects Gaborone and forms one of its most significant features. The Notwane River flows west east through the city and forms the main tributary to the Notwane River. Smaller streams include the Naledi stream in the Southwest and the Marapoathutlwa stream in the north both of which also form tributaries to the Notwane River.
In general ground slopes are between 1 in 75 and 1 in 150.

Climate.
The Long term annual average rainfall is 526mm with a seasonal variability of 30% the majority of the rainfall is concentrated into a small number of intense storms, generally of short duration and occurring in the months from October to March. The monthly men rainfall varies from 104mm in January to less than 1mm in July.
Mean monthly temperatures vary from 33 degrees C in January to 23 C degrees in July and the mean monthly minimum temperature vary from 4 C degrees in July to 20 C degrees in January. In June to August the temperatures can fall below freezing.
The mean number of hours of sunlight per day ranges from 9.8 hours in August to 7.7 hours in April. The prevailing winds are from the Northeast and are generally of low velocity. Average yearly evaporation rate is approximately 2.5m.

Soils.
In general the soils and landform of the Gaborone area have developed from the Gaborone Granite Complex of the Archeozoic Era. The big part of the city is located on the Central Assemblage where the rock is coarse to fine grained granites. There are also some extensive outcrops of hard laterite gravel and small pockets of calcrete.
The soils formed from the decomposition of granite bedrock consist mainly of fine sands and silts derived from the quart component of the rock. These are combined with clays derived from feldspars and micas. Soil depth is generally thin from 1.5 – 2.5metres. However, there is considerable variation depending upon local bedrock.
Leaching by rainfall and subsoil water movement has tended to remove the clay fraction from higher ground and deposit it at low points such as hollows, streams and riverbeds. Therefore the organic clays are mainly associated with the major river course of the Notwane River (and this is where urban agriculture can best be practised). There is a high incidence of soil erosion especially from unvegetated slopes (Gob: GCLMP pg.10)

Vegetation.
There is little natural undisturbed vegetation within the city. Generally the sand soils support a tree savannah comprising tree species to include *Terminalia sericea (*Silver

Terminalia), *Acacia erubescens (*Blue Thorn), *Peltoforum africanum (*Weeping Wattle), *and Boschia albitrunca (*Shepherd's Tree). The clayey soils support a range of Acacia species especially *Acacia burkei (*Common hook thorn), and, *Acacia karroo (*Sweet thorn) and *Acacia tortilis (*Umbrelaa thorn).
Other indigenous trees that are common within the surrounds of Gaborone include *Celtis africana (*White stinkwood), *Colophospermum mopane (*Mopane), *Combretum apiculatum (*Red bush willow), *Comretum seheri (Large fruited bush willow), Papea capensis (*Indaba tree) and *Spirostachys africana (*Tamboti tree).

People involved in UPA and their characteristics.
In this section we highlight characterization of the farmers and their agricultural enterprises.
As the economy of the country has been declining and poverty on the rise, there seems to have been a rise in UPA for the low-income earners seeking to survive. Parallel to this has also been a steady growth in the establishment of commercial farming activities as wealthier people have ventured in this activity due to favorable investment opportunities in Botswana. In a study by Hovorka 2001 it has been found that the majority of CUPA enterprises emerged between 1990 and 2000, and particularly from the period 1995 to 2000(Hovorka 2001).
The Financial Assistance Programme (FAP) has been a significant catalyst for the increase of CUPA. Indeed there is a strong correlation between the recent emergence of agricultural enterprises and the distribution of FAP grants to farmers in the Greater Gaborone Area. Of the 78 enterprises surveyed by Hovorka, 4 were awarded FAP grants prior to 1990, while 7 received grants between 1990 and 1995, and this increased to 26 enterprises with FAP grants between 1995 and 2000 (altogether 47.4%). Many of those interviewed noted FAP as a major incentive to begin agricultural production. The total amount of FAP grants provided to commercial peri-urban and urban farmers is approximately P3, 000,000 (US$500,00). The grants fall within the small- and medium-scale sectors, which support enterprises with investments in fixed assets of less than P75, 000 (US $ 12,500) and between P75, 001(US$12,500) and P200, 000 (US$33,333) respectively. In her study Hovorka found that of 39 sample CUPA enterprises not receiving FAP, two were receiving AE10 funds, others had bank loans or lines of credit, while the remainder used personal savings for financing their agricultural operations.
Almost 50% of the 78 enterprises are registered business trade names or companies. Additional 16 enterprises, while not registered, receive FAP support. Hence a total of 53 agricultural enterprises are formally recognized as part of, and contributing to, the urban economy. This is an important qualification given that urban agriculture remains an illegal, informal and invisible sector of the urban economy in many countries.

Socio-economic characteristics.
The gender of UPA small-scale farmers is skewed towards females, with 73% being females as against 27% male. On the other hand, for commercial farm owners figures show that 52.6% are male owned, 12.8% are female and male owned and 43.6% are female owned. There is a predominance of black Botswana citizens, along with a small percentage of whites with Botswana, European and Australian citizenship, and a smaller

incidence of ethnicity respectively of commercial (peri)-urban farmers in Greater Gaborone. (Hovorka, 2001, pp.65).
A majority of UPA commercial farmers hold full-time employment in the area with their involvement in agricultural production. In fact only 27 farmers concentrate solely on their agricultural enterprises - showing a tendency of remote-controlled farming. On the other hand the small-scale farmers do it on a part time basis while holding other duties/work.
Finally, the farmers surveyed shows that for small-scale farmers they have basic primary education, whilst commercial farmers are well educated, as most have gone beyond secondary level education. More details on gender will be elaborated when the research touches on the various financial programmes that will be reviewed.

Reasons for engaging in UA and UPA.
When asked about reasons for engaging in subsistence and commercial agricultural production in Gaborone and Greater Gaborone, common themes emerged amongst the farmers based on economics, food sufficiency and lifestyle/social context. The majority of the large-scale farmers, 45% was due to the associated investment opportunities and their intention to capitalize on FAP grants/funds. On the other hand, the subsistence farmers engaged in UA for socio-economic reasons, food needs and a means of earning an income. In terms of productivity, Hovorka's study shows that commercial UA in Greater Gaborone generated a total of P96.6 mil (US$ 16.1) in year 2000 from 72 enterprises. (pp.74). UPA has also generated employment. In 2000, these operations employed 1121 people on a full time basis and at least 44 people on a part-time or causal basis.

Box 1: A summary of interviews with various stakeholders - scheme managers, beneficiaries, government officials and NGOs.

Reasons advanced for involvement in UA and UPA in Gaborone.

- To create employment among the marginalized individuals (e.g. youth drop outs, female headed households, unemployed, street vendors, retrenched workers etc)
- To supplement incomes
- To eke a living for the poor (subsistence farming)
- To take advantage of Government Intervention Schemes in order to enrich oneself.
- To supplement family food sources
- To improve nutrients of family foods
- A pass time for those employed with adequate salaries
- Make use of unbuildable stretches of land - e.g. river valleys, wetlands, etc.

Source: Researcher

Location of UPA activities within the study area.

Subsistence and commercial agriculture is located throughout Gaborone and Greater Gaborone and there are a variety of spatial context in which production occurs. Dairying in Metsemotlhabe, Otse, Gabane, Kumakwane, for example offers ample space for extensive grazing; and poultry production at the Gaborone Dam and Tlokweng provides

close proximity to the urban market. While commercial agricultural enterprises are relatively dispersed in the peri-urban environs, distinctive pockets of areas of concentration can be found within the city boundaries. Gaborone dam, for example currently has seven operational poultry farms, three horticultural enterprises and 2 commercial fishermen; Gaborone north has a total of 16 commercial agriculture enterprises, including horticulture, piggery, poultry, rabbit and small stock production. Outside Gaborone city, Tlokweng, Mogoditshane, Notwane, and Mmopane have relative concentrations of commercial agriculture enterprises.

In Greater Gaborone there are 539 ha, with 162 ha within the city itself and 377 ha. in the peri-urban area. Average plot sizes is almost equal when comparing urban with peri-urban plots; the average plot size of commercial agriculture in Greater Gaborone being 6.5ha. These numbers decrease as one considers the actual area under agricultural production whereby 56 ha of urban land and 189ha of peri-urban land are used for commercial agricultural activities. Not surprisingly, the average plot size of land under production is slightly smaller in urban areas than in peri-urban areas specifically 2.09ha and 3.44ha respectively.

In terms of land ownership and land tenure it shows that 47.2% falls under tribal, 34.8% freehold and 18.0 leasehold

Map 1: Greater Gaborone - Location of UPA Activities.

Types of UPA.

Subsistence and commercial urban agriculture in the study area is comprised of activities in a number of sub-sectors, in varying degrees of scale, productivity and specialization. In order of magnitude the numbers are as follows:-

1. Poultry boiler 40%
2. Horticulture 20%
3. Piggery 10%
4. Poultry layer 8%
5. small stock 6%
6. dairy 6%
7. livestock 5%
8. Fisheries 2%
9. rabbits 2%
10. quail 1%

There is also a mixture of small-medium and large-scale farms. Below are details of the major activities carried out.

(a) Rain fed crop production.

In both the urban and peri-urban areas rain fed production is at present dominated by small traditional farms(average 5 ha), most of which use only animal draught power, which provides inadequate tillage. Traditional farmers do not apply chemicals or practice row planting and generally fail to adhere to the proper cultivation calendar. Traditional

farmers achieve very poor crop yields(principally sorghum, maize, millet and beans) in comparison with world figures and the few existing, large-scale commercial rain fed farms in the peri-urban areas.
Rain fed agriculture is also undergoing a process of feminization, with 40% of household heads being female farmers. Female-headed households are characterized by even lower income than their male counterparts, mainly due to the fact that 65-70% of these households do not own cattle, while only 45-50% of male-headed households do not own cattle. These demographic characteristics also contribute to the declining performance of the sector.
The Poverty Survey of 1997 suggests that the per-capita income of rural population is on average about P1,500 (US$ 250) per year.
Cognizant of these critical problems of the arable sector, the government has engaged in large scale support programmes to provide the farmers with subsidized agricultural inputs to overcome drought seasons, and financing of cultivation implements to raise their productivity level. Despite the wide range of agricultural support and extension programmes, there has been very little improvement in the production levels of the traditional rain fed agriculture sub-sector (NAMPAD, 2001).
The economic analysis made of this sector clearly shows that the small traditional farms are not economically sustainable, even if much higher crop yields could be achieved under this kind of production system.
A prerequisite for rendering rain fed crop production economically viable is the introduction of mechanization in most of the cultivation activities, combined with improved farm management practices.

Commercial rain fed farmers in the study area grows products mainly for sale. They hire labour and may use fertilizers and pesticides when needed; they buy hybrid seeds and either own or hire tractors for ploughing their fields. Commercial farmers plant more than 50 ha. and obtain yields of 500 kg/ha and more.

(b)Irrigated agriculture.
Present horticultural production is dominated by a few large and small (mostly 1 ha)fragmented farms in the peri-urban areas. Most of what is produced is vegetables (tomatoes, potatoes, cabbage, chomoullier, green mealies, some onions, some beetroots and citrus fruits). Green house cultivation of vegetables, which is only applicable to crops like tomatoes, pepper, cucumber and eggplant, is highly cost-intensive and requires very skilled manpower. Moreover, the prices of greenhouse produce are affordable to only the affluent.
As in the case of rain fed farming, the large-scale commercial farms out-perform the small-scale farmers by an average factor of two.
The majority of small-scale horticulturalists lack the know-how as well as the facilities to practice modern, efficient irrigation and crop production methods and therefore unable to sustain a reliable produce supply to the markets. The fragmentation of vegetable production into many small farms denies the growers several potential economies of scale, including the possibility to deal with market fluctuations, high transportation and post-harvest costs, etc. and to obtain specialized professional service.

© **Dairy farming.**

Dairy farming within the peri-urban area is low. The average size at present consists of 15-20 milking cows, including a high percentage (more than 40%) of dry cows. Average annual milk production per cow is generally very low - about 2,000 litres. In Gaborone, the number of milking cows was 414 in 1998 and this is projected to grow to 2,775 in 2010(NAMPAD, 5-7).

This situation may be attributed principally to inadequate feed, in terms of quantity and quality, and the fact that milking cows are neither given proper housing conditions nor individual attention to their physiological and production needs.

With proper housing, feeding and farm management practices, it should be possible to achieve an overall average yield of 4,000-6,000 litres per cow within a few years (NAMPAD, pg. 1-14).

Methods of production.

An initial survey of small scale and commercial urban agriculture in Gaborone (Mosha 1999) and Greater Gaborone by Hovorka (2001) reveals a range of technologies and models of production. Most of the small-scale farmers use very simple and basic methods of production. Intensive urban agriculture, for example, is an integral part of the production system at Sanitas (a private High-Tec horticultural plot in the city), and there are a handful of specialized horticultural producers in the area, primarily concentration on tomatoes, cucumber, garlic, strawberries and fruit trees. The majority of horticulture producers cultivate leafy vegetables, like lettuce, rape, and choumolier, due to their consistent yield over the agricultural season. Many horticultural producers also make use of net-shading or green houses to compensate for unpredictable weather or harsh climatic conditions.

Obstacles and challenges.

A number of obstacles face UPA small scale and commercial farmers. Respondents spoke of three main challenges, namely market, inputs and labour. Others complained of hostile complaints from neighbors. (***See Box 2***). 40% of farmers noted marketing challenges, as the market is biased in favour of South African producers particularly in the horticultural sector. Farmers also voiced concern about the availability and affordability of inputs as largely dictated by the dependence on South Africa or local large-scale producers for key items such as breeding stock, day-old chicks, feed specialty equipment etc. There was also complaint about water and land availability. 21% complained about labour issues, namely predominance of unskilled, irresponsible, uncommitted employees that provide little productive capacity, lack initiative, make unreasonable demands and generate theft/security problems. Despite these obstacles and challenges, the majority of commercial farmers in Greater Gaborone expressed their intention to expand commercial production, either in terms of size and capacity or diversification/specialization of produce, in the future.

BOX 2: CONFLICTS BETWEEN POULTRY FARMERS AND NEIGHBOURS

Tlokweng residents(a satellite of Gaborone city) living next to Star Poultry farm are up in arms against the chicken farm, which, they say poses a health hazard.
Ever since the poultry farm became operational last year, residents have been plagued by swarms of flies coming from the farm. The disgruntled residents complained that the flies settle on everything from rafters to pots and have appealed to the Tlokweng Land Board to relocate the farm. Monana Mokoba one of the residents living next to the poultry farm said, they are unable to lead a normal life as the flies from the chicken farm have taken over their houses. Mokoba said that they had appealed to the Ministry of Health to no avail. "The situation is terrible here. We live with flies, eat their dirt, sleep with them and drink water full of them" she fumed.
Another resident, Elliot Baathotse a businessman was forced to close his tuck shop, which sold cooked meat and chibuku due to the flies. Baathotse says his business had to be closed because customers did not want to buy from a fly-infested shop.
"This man has affected my life and my business, we are having diarrhea almost everyday and vomiting daily", says Baathotse.
Although the director of Star Poultry farm M. Siddiqi has confirmed that indeed his farm is a health hazard, he said that the residents were not cooperative. "I have given them fly traps so that they can trap those flies but their children are destroying them, what must I do, chase the flies myself?" he said as a matter of fact…The manager blamed the land board for allocating him a business plot in a residential area.
"Every poultry farm has flies, so the council and land board should have known this before they allocated me this plot. I am not at fault here, I am simply running my business legally"

An article from ***The Voice - Friday May 17, 2002.Botswana***

Levels of Income.

Incomes derived from UPA are very varied as the scale ranges from small-scale backyard operators to commercial farmers on the periphery of the city. Again accurate data is difficult to come by for the small-scale farmers. However, the study on Gaborone carried out by Mosha(1999) shows that incomes for the small and medium farmers varies from zero, where the farmer grew just enough to supplement own consumption of produce to between P5,000-8,000 (US$ 833 - 1,333) a month for a few of those within the city boundaries. In the study done by Hovorka(2001) on commercial farmers in the peri-urban area, the income figures are as follows: P0-5000 or US $ 0 - 833 (29.5%); P5,001-10,000 or between US$ 833-1,666 (24.4%); P10,001-25,000 or US$ 833 - 4166 (19.2%); over P25,000 or US$ 4166 (5.1%) and the rest 21.8% there was no data available, but it is known that some of the large poultry farms do get money in this range.

PART 3: FINANCIAL AND OTHER ASSISTANCE FOR UA and UPA.

Credit and Investment for UA interventions.

The Botswana government has a long history of assisting entrepreneurial development of businessmen and women through various schemes and programmes; it also provides credit in the form of outright financial grants, loans, inputs(machinery, seeds and seedlings etc) or any other financial subsidies. In addition, NGOs and donors have contributed some investment in this sector. Lastly, the private sector including banks and

other investors have given credit for the establishment of commercial farms in many areas including peri-urban areas.
Over the last 20 years, there have been many supportive schemes to help Batswana to start their businesses.
The schemes include Batswana Enterprise Development Unit(BEDU); the Small Borrowers Fund(SBF); the Financial Assistance Policy(FAP); the Micro Business Finance Scheme(MBF) for small, medium and large scale enterprises; the Credit Guarantee Scheme, which supports loans to citizens from commercial banks; the Reservation Policy, which reserves bars, butcheries, petrol stations, brick making and road marking to citizens only; the Self Help Housing Agency(SHHA) which helps citizens to build their own low cost houses and the Citizen Contractors' Fund, which offered cash support to a small number of citizen contractors who needed help to pay their suppliers. There are many other citizen support schemes that could be added to this list.

The agricultural sector, including the arable sub-sector, has benefited from a wide range of support schemes aimed at protecting farmers from the risks of rain fed farming, provide insurance against natural disasters and secures them against market failures. The programmes include:-

- Arable Lands Development Pprogramme
- ARAP - now discontinued
- Drought Relief(seeds, ploughing, destumping and food rations),
- Financial Assistance Policy
- Subsidized purchase prices for grains sold to Botswana Agricultural Marketing Board(BAMB)
- Agricultural extension.

Such support reflects the number of factors, including the historical importance of the sector to a majority of the population and the marginal nature of much of the arable cultivation.
It should be mentioned at the outset that all these schemes help farmers whether they are in urban, peri-urban or rural areas. No specific schemes have been earmarked specifically for urban or peri-urban areas. This is why in this study, a case is being made to have certain intervention schemes geared to urban/peri-urban areas due to peculiarities of such area.
The MoA, through its agricultural extension programme(AE10) helps with group formation especially young women, and youth to engage in UPA activities like poultry, horticulture - In Gaborone, the example is Segoditshane River. It is believed that associations are better than individuals.
The Women's Affairs Unit, MHA does give financial help to women's groups/cooperatives in horticulture(vegetable gardens,) as income generating activities and poverty alleviation. Funding is given for start up capital and for certain components of a project e.g. an engine, fertilizers etc. Examples of funds given within Greater Gaborone in 1998- to-date include:- Mankgodi - P64,141(US$10,690), Manyana P74,500(US$ 12,416), Palapye P42000(US$ 7,000), and Gaborone P 310,141(US$ 51,690)(*personal interview, MHA)*

International organizations like the Africa Development Fund has funded projects assisting civic organizations to engage in income generating activities - e.g. Dikwididi - a farmers ladies group raising chicken, broilers, also in Oodi and Modipane.
NGOs have also helped individuals to engage in UPA activities. For example, Women Finance House, based in Gaborone gives financial aid mostly for business of hawking, but a small number engage in buying and selling of vegetables on street corners.

Summary of Expenditures on Agricultural assistance.
A breakdown of expenditures incurred on all assistance programmes in the past 15 years is given in table 1. As can be seen, a lot of funds have been given both by the government and the banks to help farmers engage in agriculture.

Table 1. Expenditures on Assistance Programmes, 1985-2002/3.

	ARAP Million		FAP ARABLE Million		Sub-Total Million		Banks Mil.		Total Million	
	Pula	**US$**	**Pula**	**US$**	**Pula**	**US$**	**Pula**	**US$**	**Pula**	**US$**
NDP 6	494.3	($82)	4.4	$0.7	555.9	$93	514.7	$86	1070.6	$178
NDP7	250.0	$42	8.8	1.5	288.8	48	388.9	64	677.8	112
NDP8	100.0	$33	9.8	1.6	125.1	21	136.7	23	261.8	44

Source: NAMPAD, pp.2-38.

Of the various programmes three have achieved some marked success in urban and peri-urban agriculture and these are ALDEP and FAP and the newly introduced CEDA replacing FAP. These will be examined in depth and evaluated in the following sections of this report.

3.1. ARABLE LANDS DEVELOPMENT PROGRAMME(ALDEP).

The ALDEP was conceived in 1977. It provided assistance to needy farmers who are capable of increasing production and household income, the prerequisites for eligibility being number of cattle and yearly income. The assistance package included:-

- on-farm investments, including draught power, farm implements, fencing, materials, water catchment tank for the household and animals;
- seasonal inputs: originally ALDEP did not provide subsidies for improved seeds, chemicals, fertilizers, insecticides and pesticides; however, farmers secured short-term loans from the National Development Bank to purchase these inputs.
- Following a successful pilot programme, the Phase 1 of the programme was initiated in all regions except the Western Region.

Phase 1.
Phase 1 of ALDEP began in 1982. It was financed mainly from external sources - the African Development Bank(ADB) and the International Fund for Agricultural Development(IFAD) - as well as by the Government of Botswana. Its main purpose was to raise the "…poor subsistence/below subsistence farmers to higher levels of productivity so that they become self sufficient in meeting their food requirements." It offered farmers a package of arable agricultural inputs, as mentioned above. Eligibility criteria varied, but the intention was clearly to target the poorest farmers and those in the

most remote areas. Eligibility requirements were also graded according to the ability of the farmer to use the package to advantage. For example, farmers whose land is not distumped can use all the packages except secondary tillage equipment, planters, cultivators and harrows. The subsidy/grant is 85% of the total value of the package. The subsidy for women is currently 90%. In some cases the farmer's monetary contribution is waived or reduced if he/she uses his/her labour or in some cases uses property as down payment.

A number of farmers were selected by ALDEP programme to act as District Demonstrator Farmers (DDFs). The DDFs, one per agricultural district, demonstrate new crop varieties and farming methods on their respective farms. They are provided with a complete assistance package and, according to the MoA, higher production levels were achieved.

By 1993, a large number of applicants for DDF had accumulated and the programme was suspended for three years to allow them to be processed

By the end of this phase, ALDEP had been able to make a significant impact on crop production in terms of higher and sustainable yields and stabilized incomes of the rural and peri-urban poor.

Phase II. 1996- to-date.

Phase II of ALDEP programme began in 1966 and is still in progress. It is currently the dominant programme in the domain of small-scale arable agriculture. Phase II, like Phase I, is targeted to the "resource poor" farmers(including those in peri-urban areas). The packages are also similar to those in Phase 1, with the exception of certain modifications and changes in emphasis.

The revised ALDEP policy guidelines(Dec. 5, 1997), present the following objectives:-

- Facilitate technology transfer
- Strengthen training and extension services
- Promote efficient and effective utilization of assistance packages previously obtained by the farmers
- Cater to the most needy segments of the community from within the target group(female farmers, the elderly, farmers lacking family labour and farm equipment), in order to increase their crop production.

As in Phase 1, a number of farmers were selected by ALDEP programme to act as DDFs. A total of 54 ALDEP demonstrator farms were developed to disseminate technology (5 of which are in the study area). The selected farmers are provided with a complete assistance package and, according to the MOA, higher production levels were attained.

Target population.

Access to draught power was found to be the major constraint to arable farming among the poor farmers. ALDEP therefore focused mainly on the poorest farming community and on those farmers who owned less than 40 head of cattle, this number serving as a proxy indicator of access to draught power. The project target population was estimated at 44,000 households nation-wide and was divided into four groups, or models, as follows:-

- Model 1 : the poorest group, which did not own any cattle.
- Model 2: 1-20 head of cattle(inadequate draught power)

- Model 3: 21-40 head of cattle(adequate draught power)
- Model 4: Farmers practicing flood recession farming in the Okavango delta(Molapo)

The eligibility criteria were defined over the course of implementation with the aim of benefiting as many poor farmers as possible, as follows:-

- All farmers with less than 40 head of cattle, or these with an annual income of less than P3,600 or US$ 600(revised to P7,500 or US$ 1250) are eligible for assistance.
- Farmers with land not distumped but still engaged in farming are eligible,
- Model 1 farmers who were previously eligible only for donkeys in the draught power package can now be supplied with 2 oxen or 2 heifers,
- The requirement for 40% down payment for oxen has been reduced to 15% for the poorest of the target group(with 0-10 heads of cattle)
- Implements are to be given only to those farmers who have draught power, including *mafisa(*persons tending another person's animals)
- To encourage the improved farming practices of row planting and inter-row weeding, it is obligatory for farmers to take both planter and cultivator.
- The maximum payment for the services of a fence erector/water tank builder is P200 or US$ 33.
- The for plough package, only those with less than 10 heads of cattle are eligible.
- The poorest of farmers(Model 1) are given a free fencing package if they have an annual income of less than P500(US$83).

Initially ALDEP was to assist its target farmers in acquiring farm packages through a **loan/subsidy scheme**. This strategy was replaced by a **grant/down payment scheme** due to the harsh climatic conditions of the 1980s, which proved to be a major obstacle in achieving the objectives of ALDEP. The grant/down payment scheme provides the farmers with a subsidy component of 85% of the value of each package, with the farmer's contribution being 15%.

Evaluation- Participation and results.

The overall level of participation by farmers in ALDEP has been fairly impressive. By March 1996, about 39,500 of the 44,000 farmers were covered, representing a coverage of roughly 90%. The table below provides some insight into the participation characteristics during the period 1982/83 to 1996(BIDPA 1998).

Table: 2. Participation of Farmers in ALDEP, by Model.

	Model 1		**Model 2**		**Model 3**		**Total package**
	Packages	%	Packages	%	Packages	%	
Annual Average	710	22.0	2,160	65%	430	13.0	3,300
Max.Annual	1,260 (1989/90)		4,180 (1985/86)		1,065 (1985/86)		5,960 (1985/86)
Total	P8,460 **US$1410**		P25,960 **US$4326**		P5,115 **US$852**		P39,540 **US$6590**

Source: Study on Poverty and Poverty Alleviation in Botswana, Feb. 1997, Table 7.5, pp111.

Participating by the poorest of the farmers and female farmers (Model 1) has been low relative to other groups of farmers, especially in Phase 1. Only 20% of the Model 1 farmers participated in the programme during the period 1982 to 1996, probably due to the failure to assess their capability to secure loans and raise a down payment. Model 2 farmers have taken the lead, with 65% of them participating in the programme, implying that the programme was properly targeted to this group. Households headed by females accounted for 44% of total packages distributed, with more female farmers from Model 1 being represented than their counterpart male farmers. This is illustrated below:-

Table 3 - Male vs. Female Participation in ALDEP, by Model.

Package	Model 1		Model 2		Model 3		Model 4		Total
	M	F	M	F	M	F	M	F	
Draught Power	16.5	12.0	11.8	9.3	5.5	6.1	11.4	10.0	5,532
Implements	45.0	48.0	53.3	57.5	49.2	46.3	51.1	54.0	27,248
Fencing	35.5	37.4	32.7	27.1	41.5	31.0	34.7	30.0	16,907
Water tank	1.5	1.3	1.5	1.9	3.7	3.6	2.0	1.8	905
Scotch cart	1.4	1.2	0.7	4.2	0.1	13.0	0.8	4.2	1,296
Thresher	0.1	0.1	0.0	0.0	-	-	0.0	0.0	23
Total	4,676 $799	5,959 $993	18,443 $3073	15,647 $2607	4,936 $822	2,309 $384	28,055 $4675	22,830 $3805	51,970 $8661
%	20.5%		65.6%		13.9%				

Source: NAMPAD, 2:33.

Regional performance of farmer participation and package distribution, is presented on table 3 The Gaborone region's participation(study area) was only 48%.

Table 4- Farmer participation in ALDEP by Region.

Region	Target	No. of Farmers	% Achievement.
Gaborone	11,388	5484	48%
Southern	6561	6290	96
Central	13651	14476	106
Francistown	8145	10368	127
Maun	4397	2832	64
Western	0	91	n.a

Source: NAMPAD, 2 pp34.

The average production of ALDEP farmers has been higher than non-participating farmers. This was attributed to the greater area planted and to row planting. However, despite these differences in performance, caution should be exercised in interpreting the impact of ALDEP on production, as the impact of other programmes cannot be isolated. Moreover, even the impact on production has not been sufficiently significant as to allow the farmers to move from a lower income model to a higher one. Actually, many of those initially classified as Model 3 farmers had dropped to Model 1 or Model 2 due to the loss of livestock during drought. In terms of contribution to individual income, the impact of ALDEP has been low. The impact of ALDEP on creation of employment has also been minimal, since returns on hired agricultural labour are low and thus farmers have still been faced with acute shortages of labour at the peak of the plough/planting season. Studies have repeatedly indicated that labour is an important factor in determining the area to be planted, the use of row plating and the extent of weeding. Labour shortages are experienced by farmers, especially female farmers, in all models. Given the low rates of return on labour in arable agriculture and thus the preference in higher income activities, labour shortage adversely affects the goal of increasing production.

In summation, ALDEP has not been able to significantly improve the performance of the arable agricultural farmers, especially urban and peri-urban farmers as most of the farmers cultivate only small patches of land(sometimes as low as less than an acre) unlike in the rural areas where farmers own big chunks of land and hence enjoy economies of scale. The original assumptions of the programme regarding annual rainfall have proven to be optimistic, as a result cultivation has been reduced over the years (NAMPAD 2001). At present ALDEP generally appears to be more of a welfare than a development programme, as it des not effectively encourage the farmer to produce more than his basic needs. Moreover, to be eligible, the farmer is careful to improve production in such a way that his yearly income does not exceed the eligibility level.

Another drawback of ALDEP is that it overburdens the extension services in the regions, which were assigned with administrative operation of the programme, to the extent that execution of their professional tasks as agricultural extension officers is adversely affected.

Eligibility to arable land holding in Botswana is common, i.e. every Botswana citizen is eligible for communal land upon application, subject to terms that are within the reach of most citizens. Assistance packages such as ALDEP provide the approved applicants with an 85-90% subsidy for fencing materials, water tanks, agricultural tools and inputs and cattle. These conditions are attractive enough to attract a great number of citizens to be farmers, but only with minimal involvement.

In the design of ALDEP it was assumed that farmers would adopt the entire technical packages within a short time span. However, no ALDEP farmers have adopted the full package. The majority of farmers have adopted two packages at the most. However, research suggests that adoption of new technology follows a clear sequential pattern, with components that give highest returns on investment being adopted the earliest. This has not necessarily been the case for ALDEP farmers and hence the impact of the programme has been reduced significantly.

Moreover, increased incomes were assumed to be strongly correlated with the farmers' ability to produce surpluses and their ability to sell their surpluses to the Botswana Agricultural Marketing Board(BAMB); in practice however, they have generated little or

no surpluses, both because most years were afflicted by drought and also because BAMB failed to build decentralized lock-up stores for grain storage and thus was not always the primary buyer of farmers' produce.
Government policies have also not always been conducive to promoting ALDEP. The introduction of ARAP in 1986/87 as a drought recovery programme open to all farmers conflicted with ALDEP. Most of the assistance packages offered under the programme were similar to those offered by ALDEP. However, ARAP offered a **100% subsidy** for ploughing/planting, seeds, fertilizers, weeding and destumping, where ALDEP required a 15% down payment. Thus, rather than providing extension services to farmers and promoting participation in ALDEP, the ADs(Agricultural Demonstrators) were occupied in administrating the system of grant giving under ARAP. Even though ARAP has since been phased out, a similar scheme has been established in its place as the Drought Relief Programme and if this programme is to continue, it will definitely compete with ALDEP.

ALDEP and Gender.
In the first years of implementation, ALDEP reached very few female farmers. However, the programme was re-designated in 1991 and certain preferences were given to women, such as smaller own contribution (10% rather than 15%), no minimum land area needed(had been 3 ha. Minimum), and no contribution for fencing for model FHH. The ALDEP programme administrators have tried to achieve gender equity in the take-up of packages.
For the ALDEP programme, most women obtain their own contribution from sources other than credit. A common source of funding is from their children (MoA, 1991). The lack of collateral (because of communal land tenure systems) was recognized by ALDEP and served as the main defence for converting the original design of a credit element to a grant. However, ALDEP does not reduce the cost of accessing external resources for women who want to participate.

3.2 THE FINANCIAL ASSISTANCE PROGRAMME (FAP) 1982-2001.

The second form of financial assistance to farmers, "The Financial Assistance Policy (FAP)" was introduced in 1982 as an incentive and subsidy policy aimed at creating employment and encouraging investment in a range of economic activities, including agriculture. Its original intention was to stimulate investment in sustainable economic activities that would produce either exports or substitutes for imports; originally this focused on goods (manufactured and non-traditional agricultural products), but it was gradually extended to include some service, such as tourism. The amount and type of assistance potentially available depended upon the size of the proposed project.

Objectives of FAP.
It was clear from the start that the key objective of FAP should be the creation of employment opportunities through new productive activities. Complementary objectives included economic diversification and development of local entrepreneurial skills.
The specific objectives of FAP were to

(a) create sustainable employment for unskilled labour;

(b) produce goods for export or substitute for imports
(c) diversify the economy to lessen its dependence on large scale mining, beef exports, and growth of the public sector
(d) improve citizen skill through training.

Given the emphasis on employment creation, FAP incentives were structured so as to encourage maximum employment of unskilled and semi-skilled workers. The FAP capital grant, for example, was based on the number of actual or projected employees, and the FAP labour grant on wages paid to unskilled or semiskilled workers. Preference was also to be given to women.

These objectives of FAP can, of course, be seen as socio-political and not economic ones. They aim at promoting social harmony and ensuring equity in the distribution of the benefits of growth. The other implicit objectives included in the promotion of citizen ownership of business and creation of a national entrepreneurial class. This raises the question of whether FAP was designed to be a social policy or an economic policy or both.

Administration of FAP.

The assistance was administered as follows:-

(i) Small scale projects were administered through:-
- Integrated Field Services- for manufacturing and selected services in rural areas.
- AO - for manufacturing and selected services in urban areas and
- AEO- for agricultural projects.

(ii) Medium scale projects were appraised within the relevant sector ministries, i.e.
- Ministry of Commerce and Industry- for manufacturing and tourism projects
- MOA- for agricultural projects
- Ministry of Mineral Resources and Water Affairs-for borehole repair services.

(iii) All large-scale projects were appraised and administered by MFDP.

The Ministry of Finance, Development and Planning (MFDP) was also in charge of all overall policy decision regarding the direction of FAP.

The administration of FAP followed clearly laid out procedures in terms of process. The process started off with a business idea(e.g. keeping of poultry) or concept supposedly emanating from an evident business opportunity. The project proposal, evolving from the idea, then kick started the process where an FAP application form on a prescribed model was completed by or on behalf of the project promoter. This step was then followed by evaluation of the project by the relevant FAP office after which the project was forwarded to the relevant approval body with a recommendation for either approval or rejection based on assessment of viability within the confines of FAP measurement criteria. If approved, the project memorandum, under cover of a written request to sanction disbursements, was forwarded to the appropriate NDB regional office for small scale and to NDB headquarters for medium and large-scale projects. Post disbursement was the implementation, which was done by the FAP office. Monitoring where all legal

and administrative issues were supposed to be conformed to then followed. Except for disbursement, which was administered by NDB, relevant government offices handled all other activities, with MFDP as the coordinating body.

Types of securities for FAP projects.

There are different types of securities that can be used by FAP applicants. These are Deed of Hypothecation, Notarian General Bond and Performance Bond. They vary in terms of flexibility and stringency.

(a) A Deed of Hypothecation is on movable assets of the company passed in favour of the creditors. It covers all movable assets. For recovery of funds in the event of liquidation, the movables are not required to be attached, as in the case of Notaria General Bond.

(b) A Notarial General Bond used to be taken as security for FAP grants. It covered the movable assets of the company. In the case of default by the grantee, Government attached movable property.

(c) The Performance Bond was basically a guarantee given by a bank in favour of a creditor.

The Structure of FAP.

FAP actually consisted of two different schemes, one for small-scale projects(agricultural and manufacturing), which was restricted to citizens, and which primarily consisted of a capital grant for new or expanding activities.

The second, for medium and large-scale projects, was open to both citizen and non-citizen investors, and was the government's main incentive scheme for attracting foreign investors. Although FAP for Medium and Large-Scale projects included a small capital grant, the main form of assistance was an ongoing wage subsidy for unskilled workers and a grant paid against approved training costs (labour grants)

(a) Small scale Projects.

Assistance took the form of cash grants payable against the capital cost of establishing enterprises in the eligible sectors as well as a small contribution towards working capital. The level of grant payable to a project was determined according to a range of criteria, including the location of the project, whether the promoter was male or female (with females getting 15 points more during assessment) and the number of jobs that were projected. The maximum grant payable was 90% of the capital cost of the project. The maximum was P75, 000 (US$ 1250). All Payments were made in the first three months of the project's operation, although grantees could apply later for expansion grants.

The factors that affected the percentage of initial investment that was awarded were:-

- location of business
- gender of owner
- disability and
- employment creation.

FAP officers were expected to monitor projects for performance, profitability and sustainability, but there were no systematic or regular monitoring schedules nor was there capacity to carry out the required monitoring.

In the case study area, a number of small-scale projects did receive funds from the scheme. Available data from the Ministry of Agriculture FAP office, shows that 6 grants totaling P427,507(US$ 71,251) were given for a variety of activities including broilers and layers. Altogether 22 jobs were created. As for horticultural projects, 22 grants totaling P200,237(US$ 33,372) were disbursed creating 36 jobs. (see Table in Appendix.. for details)

Gender of Project Promoters.
The majority of SS FAP applicants were female for both industrial and agricultural projects (See Table below) The distribution may reflect the practice of "fronting", whereby a female applicant "fronts" for a male promoter in order to obtain the higher rate of grant paid to females (an extra 15% of the capital cost is paid to females).

Table 5. GENDER DISTRIBUTION OF SS NATIONAL PROJECTS.

	Agricultural	*Agricultural*	*Industrial*	*Industrial*
	Number	*Percentage*	*Number*	*Percentage*
Male	510	28%	200	22%
Female	1261	70%	720	78%
Groups/school/coy	42	2%	3	0%
Total	1813	100%	923	100%

Source: GOB, 2000, pp. 45.

(b) Medium Scale.
Medium scale projects received a fixed investment ranging from P75, 001 to P2, 000,000 (US$1250- 333,333). It was open to both citizens and non-citizens. It was administered by line ministries, i.e. Ministry of Commerce and Industries was responsible for industrial and tourism projects, Ministry of Mineral Resources and Water Affairs for small-scale mining projects and the Borehole Repair Scheme while the Ministry of Agriculture was responsible for agricultural projects.
In agriculture most investments were made in horticulture, dairy, poultry, miscellaneous arable farming and miscellaneous farming.

Unlike the small scale FAP, which offered a single capital grant, designated to cover most of the initial investment costs, the rules for the Medium and large scale FAP applied over a five-year period. Medium and Large FAP provided for a small capital grant at the start-year period. The emphasis of medium and large-scale support was on contributing generously to the cost of unskilled labour and other running costs.
The criteria governing medium scale projects also applied to large-scale projects.

Large and medium sized projects had to yield a real economic rate of return of at least 6% to be considered and there were three types of assistance available: -

- **Capital Grants** were payable before the project commenced. They were provided in the form of a bank account, which was to be used only to cover the purchase of fixed assets or working capital. Capital grants were P1, 000 per job created for non- -citizen-owned projects. The amount of the capital grant was capped at a specific percentage of total investment in fixed assets, which varied depending upon the location of the project.
- **Unskilled labour grant** could be claimed on the following basis:-
  - 80% reimbursement on wage bill in year 1 and 2
  - 60% reimbursement on wage bill in year 3
  - 40% reimbursement on wage bill in year 4 and 20% reimbursement on wage bill in year 5.
- **Training Grant:** 50% of the training costs below P2, 500(US$ 416) per citizen trainee per year were paid during the first five years.
  If the project ceased within the five-year period of FAP assistance, depending on the provision of the agreement, Government reserved the right to recover the whole or a proportionate amount of the capital grant. No assistance was granted retrospectively to projects more than six months old at the date of the application, and there was a limit of one successful application per 12-month period.

MS FAP projects were evaluated by line ministries. Hence agricultural projects were evaluated by the MoA. In assessing viability, FAP officials looked into areas of finance, market, operations and overall management. However, risk analysis was weak and almost non-existent. NDB headquarters dealt with medium and large-scale disbursements. Funded projects were monitored by the Internal Audit unit of the MFDP on a somewhat haphazard manner(GoB2000, pp.94).

In the study area, a number of 32 agricultural grants totaling P7,710,351(US$ 1,285,058) were disbursed. Their distribution was 12 poultry, 11 dairy, 1 piggery, 3 horticulture, 4 vegetation and 1 nursery. The employment created was 96 as against an anticipated employment of 529. Details on these activities are given in the Appendix section.

© ***Large Scale.***

Large-scale projects received a fixed investment in excess of P2.0 million(US$333,333). This was also open to both citizens and non-citizens. The Ministry of Finance, Development and Planning administered it.

In the study area, a total of 9 agriculturally based grants were disbursed, 2 in maize and sorghum processing; 4 in poultry(2 processing) and 3 vegetables. The total grants given came to P18,285,205 (US$ 3047534) of which P795,000(US$132,500) was capital grant, P825,000 (US$ 137,500) was training grant and P12,459,893 (US$ 209982) was labour grant. The actual employment generated was 774 as against a projected employment of 1041. (See Appendix for details).

Review of the Projects.

(a) Small Scale FAP.

The SS FAP had been reviewed on 4 previous occasions, along with the rest of the FAP. These evaluations broadly concluded that SS FAP had been effective in achieving its objectives, in that it had achieved a reasonable level of job creation at an acceptable cost-comparable with other forms of government-supported job creation schemes. This was a welcome outcome in the urban and peri-urban area where job opportunities are hard to come by. However, the third evaluation concluded that certain reforms should be introduced in order to ensure the continued effectiveness of SS FAP. The main changes that took place (implemented in 1995) were as follows:-

- the minimum contribution by project promoters was raised from 5% to 10% and the formula for grant calculation was changed,
- the upper limit raised from P25,000 to P75,000 (US4,100-12,400)
- the eligible sectors were extended to include tourism.

What is apparent is that the expenditure on SS FAP grants nationally has risen sharply since 1993. The total value of SS FAP grants approved from P6.1mil(US$1mil) in 1993 to P96.3mil (US$ 16.5mil) in 1998, an average growth rate of 74% a year. Figures for agricultural projects show a vast growth also. The number of grants approved rose from 160 in 1993 to 723 in 1998 and the total amount of grants committed rose from P3.6m(US$0.6mil) to P30.4mil (US$5.6mil)over the same period. The SS FAP industrial grants were dominated by sewing and knitting, brick moulding, bakery and food production. Agricultural projects were dominated by small stock(65%), poultry(24%), horticulture(5%), dairy(3%) and other-piggeries, fishing and bee-keeping (3%).

In sum, the 2000 review found that the number of jobs to be created in SS FAP projects has not kept pace with the rising expenditure on SS FAP. For example, the cost of creating an agricultural job under SS FAP was found to be Pula207 896(US$34649) as compared to P41737 (US$6956) in 1993. This implies that the cost to Government of creating a sustainable SS FAP job has increased by 400% since 1993.

Monitoring.
Most reviews have noted a weakness in monitoring of projects. The monitoring capacity was not strengthened despite increase in the uptake of the fund, both in terms of volumes and amounts disbursed.

(b) Review of MLS FAP Projects.
Like SS-FAP, MLS-FAP was structured with a labor-intensive bias, in that all grants were calculated against actual or expected job creation. However, unlike SS-FAP, which consisted of a one-off capital grant, assistance under this scheme was given in the form of an on-going labour subsidy, which was paid against the wages of unskilled workers at a declining rate over five years. There was a small capital grant paid when the project was established, and a grant paid against approved training expense.
Previous reviews of these grants shows that the scheme was broadly effective at creating jobs and sustainable enterprises, and that the cost-per-job, while higher than for SS FAP, was reasonable, and that the scheme should be continued in the new scheme of CEDA.

The national number of MLS-FAP approvals from 1982-1999 grew to 835. The total value of medium scale grants committed was P338.5 mil (US$ 56.4mil) against P342.6mil (US$56.7mil). for large-scale projects however, in terms of disbursements only 40% of the funds were actually given out. Most of the projects were industrial and little in the agricultural sector(dairy, horticulture, arable and poultry). While there was a significant concentration of medium scale grants in agriculture(13% of total), large-scale grants to agriculture were insignificant(2%)

The 2000 review showed that there was mounting evidence that FAP had not had a significant impact on attracting investment into the manufacturing sector, but had played a decisive role in sustaining some companies, which might otherwise have folded. Further, FAP had not influenced choice of technology, level of employment or wages.

MLS- FAP in agriculture.

One of the primary objectives of including agricultural projects within the FAP scheme was to encourage the commercialization of agriculture, including diversification into cash crops and intensive livestock production, and promote rural development through the creation of rural employment opportunities.

It is clear from the various reviews that nationally, small-scale agricultural projects have been major beneficiaries from the scheme.

At the medium scale level, the MoA statistics indicates that 212 projects for FAP assistance were approved during the 16-year period 1982-1998. It had been anticipated that these 212 projects would create just over 3100 jobs at a total cost of P59 mil(US$10 mil). Out of these 68(32%) never got off the ground because the promoters failed to meet the conditions attached to the grants. Out of the remaining 144 projects, 44 have collapsed but 100 were still operating at the end of 1998- although ownership may have changed hands.

Most of the medium scale agricultural projects have been in horticulture(29%), dairy(26%) and poultry(56%). The fact that most of these projects are located close to major centers of population(the South east/Gaborone area and north east) is a significant contributing factor to the potential success of medium scale agricultural projects-compared to small scale.

Review of Training and Productivity.

An explicit objective of the labour subsidy and the provision for a training grant under FAP has been to provide companies with assistance in developing skills and enhancing productivity. It was expected that the gradual withdrawal of the labour subsidy over a five-year period would coincide with increased productivity of workers as they acquired the necessary skills and experience. The training grant-which reimbursed 50% of approved training costs was also supposed to be linked to the improvement in productivity

According to the 2000 review report, it shows that there was no evidence that the training grant or labour subsidy had played a significant role in developing a skilled labour force or enhancing productivity. Although some companies claim that productivity is a serious problem, most of them do not appear to be addressing the issue, which raises questions as to whether they intend to stay in Botswana for the long term.

Impact of FAP on Gender Balance.

The current national Development Plan 8 (1997-2003) identifies that empowering of women is an integral aspect of forging the objective of social justice. The plan commits to creating an environment that is conducive to the effective participation of women at all levels of economic life.

Towards the end of NDP 7 period, government adopted a Policy on Women in Development, intended to facilitate women's access to economic opportunities and to the political processes. The policy aims at ending years of gender inequalities rooted in local cultural practices and laws.

Among the policies oriented towards empowering women was the FAP. Historical statistics on women indicate that until recently women in Botswana have been severely disadvantaged as participants in the development process.

The participation of women in the FAP scheme over the years has been significant, leading to the establishment of many small-scale projects despite the study's revelation that the sustainability of many of the projects has been low.

FAP data reveals that more women than men have taken advantage of the Small Scale FAP scheme. In most towns and villages, an overwhelming majority of FAP is women. In Gaborone, the study area, 82% of the total beneficiaries were women.

An analysis done by BIDPA(2000, pp125) of the average FAP grants among men and women in five towns and villages of Gaborone, Kasane, Maun, Shakawe and Tsabong reveals that the average FAP grant for women did not equate that of men except, perhaps, in Maun and at Shakawe. Women did not participate so much in Medium and Large-Scale FAP grants. The negligible participation of women in medium and large scale FAP is attributed to the related issue of access to credit(FAP required a portion of own contribution). Small scale FAP had a fairly even distribution between men(46%) and women(50%). Some 4% of grants go to groups. (MFDP 1995), and the job creation potential of small scale FAP as well.

Applicants were judged according to a points system, with women applicants gaining an additional 15 points. However, as with ALDEP, the design of FAP did not favor women that much. Two factors are identified. First, women are primarily assisted in 'traditional' sectors, which tend to be labour intensive. Second, women predominated in small-scale FAP projects, which had a lower success rate than medium and large-scale FAP projects.

A striking characteristic of FAP projects is that for all villages, the average capital cost of FAP projects was higher than it was for women. This may suggest that men possess more economic power so that they are able to impart higher deposits and manage more capital-intensive projects.

Most field interviews identified the problem of 'fronting' as a major issue in the implementation of FAP. Cases where men applied for FAP via women relatives were common(GoB 2000 pp.125).

Table 6 - FAP GRANTS BY GENDER IN FIVE SELECTED VILLAGES(1996-1997).

	Gaborone	Kasane	Maun	Shakawe	Tsabong

Sample size	105	18	102	22	17
Proportion of women	82%	89%	75%	45%	65%
Average grant - women	P31878 ($5313)	P32869 ($5478)	P52939 ($8330)	P52927 ($8821)	P36760 ($6126)
Average grant - men	P9042 ($1507)	P72807 ($12174)	P52505 ($8750)	P52786 ($8797)	P53880 ($8980)

Source: GoB 2000, Review of FAP,pp.126.

Conclusion.

The 2000 review concluded that FAP had indeed outlived its mission and hence recommended for it's restructuring. The two main conclusions were:-

- "FAP is no longer effective in achieving its objective of promoting sustainable employment creation. Although some lasting jobs were created as a result of FAP, they are relatively few and the cost of creating those jobs is now unsustainable and unacceptably high.
- FAP is, in any case, inappropriate to Botswana needs at the present time, and does not address the ***main constraints to investment and the development of sustainable productive enterprises***. Part of the reasons for this high cost is the *abuse and fraud* that now pervaded the scheme at all levels" (GoB 2000-FAP Review).

Further problems with the scheme, especially the SS FAP included: -

- Inadequate appraisal of projects- in most cases appraisal was quite cursory.
- inadequate monitoring and after-care of grant recipients
- poor quality of monitoring and follow up was observed.
- widespread fraud and abuse of SS FAP grants by recipients and suppliers of equipment. Almost universally, the price of capital goods provided under the FAP grant was inflated to provide the entrepreneur's obligatory contribution.
- lack of commitment by grant recipients to their projects - most just needed the money and never cared much about the projects they were running.
- Over trading in certain sectors (in agriculture, mostly in chicken and egg production)

Although some lasting jobs were created as a result of FAP, they were relatively few and the cost of creating those jobs was then not sustainable and unacceptably high.
The consultants hence recommended phasing it out and replacing it with a more appropriate scheme dubbed the Citizen Entrepreneurial Development Agency(CEDA), which is meant to improve the overall investment climate and avoid all the pitfalls of the previous scheme..

3.3 CITIZEN ENTREPRENEURIAL DEVELOPMENT AGENCY (CEDA)

The Government of Botswana in 2001 shifted from the policy of issuing **grants** under the FAP to giving **loans** under the CEDA Programme. Government established CEDA in response to the recommendations from both the National Conference on Citizen Economic Empowerment held in July 1999 in Gaborone and the 4th Evaluation of FAP, which was completed in 2000. Both reports have called for support for business development to promote development of citizen entrepreneurship, which had been found lacking among a large majority of citizens.

Form of assistance.

CEDA focuses specifically on the development of viable, ***sustainable citizen owned*** business enterprises(including urban and peri-urban agricultural projects), through the development of and access to entrepreneurial and management skills training, monitoring and mentoring provision of finance and sharing of risks.

A project specific training, monitoring and mentoring programmes has been established under the umbrella of CEDA to engage both local private sector business consultants and to facilitate access to other government programmes to train, monitor and mentor citizen businesses on management and marketing skills, thereby enhancing prospects of success of their programmes.

A Venture Capital Fund has been established and managed by CEDA to provide risk capital to citizen owned projects and joint ventures between citizens and foreigners. This will help relieve the equity capital constraint, which affects most citizen investors. The fund will invest in ventures of any size, i.e. small, medium and large.

Financial assistance provided by CEDA is in the form of loans at subsidized interest rates, as opposed to outright grants. This is meant to be a soft window for citizens wishing to start or expand business operations and to buy into existing businesses.

Criteria for Assistance(Eligibility)

The scheme is available to:-

(i) Citizens of 18 years or over wishing to start a legal business,
(ii) Existing legal businesses that are owned by citizens of 18 years of age and above; and
(iii) Under the Venture Fund, both citizens and joint ventures between citizens and foreign inventors.

The scheme is available for:-

(i) registered, viable new start-up businesses in all sectors of the economy, UPA included;
(ii) viable expansions to existing registered businesses in all sectors of the economy; and
(iii) viable purchases of equity share capital in existing registered foreign owned businesses, which are expanding.

CEDA does not provide loans to refinance loans from other financing institutions.

In all cases, promoters or project sponsors are encouraged to contribute something towards the project cost as equity or owner's contribution to share the risk, show some commitment and confidence in the project as well as to lighten the burden of repayment. The contribution may be in cash or in kind or a combination of both. However,

small/micro scale and medium scale projects will still be assisted even if the owner's contribution cannot be raised.

Level of assistance.

(a) Small/Micro Scale Projects.

The support for projects under this category is reserved for 100% citizen owned projects.
Loan Limits: The minimum size of the loan is P500 and the maximum is P150,000(US$1250). An interest rate of 5% per annum is charged on the loans. Repayment periods vary according to the size of the loan and the project cash flow. The smaller the loan amount, the shorter is the repayment period. The maximum repayment period is 60 months or 5 years, with some flexibility for projects of a special nature in sectors such as agriculture (urban and peri-urban agriculture included).
There is a grace period on the repayment of the loan, which varies depending on the implementation schedule and gestation of the project.

(b) Medium Scale Projects:

Assistance is reserved for 100% citizen owned projects.
Loan Limit: The minimum size of the loan is P150,001 (US$1250)and the maximum is P2,200,000(US$ 366,666). An interest rate of 7.5% per annum is charged on the loans. Repayment periods vary according to the size of the loan and the project cash flow. The smaller the loan amount, the shorter is the repayment period. The maximum repayment period is 84 months or 7 years, with some flexibility for projects of a special nature in sectors such as agriculture.
There is a grace period on the repayment of the loan, which varies depending on the implementation schedule and gestation period of the project.

(c) **Large Scale Projects.**

Assistance for large projects(as big chicken, dairy or piggery farms) is in the form of equity capital and/or loan and management assistance. This is provided under the Venture Capital Fund. However, promoters are required to contribute a minimum of 25% of total project cost as equity and pay market related interest rates.

OTHER REQUIREMENTS.

Business Proposals.

To access assistance under CEDA, businesses need to demonstrate viability. Thus promoters are therefore required to submit a detailed business proposal.

Security.

All assets financed by CEDA are automatically used as security by CEDA. In addition, where there are no fixed assets funded by CEDA or CEDA funded assets do not provide adequate security, promoters are required to pledge other properties or assets as security or to sign personal guarantees or sureties in lieu of such securities.
Licences:

Promoters are required to secure necessary Licences and permission for the proposed project as required by law.
Premises. Promoters are required to secure necessary land and premises from which the project is to operate.
Evaluation of Projects. All project proposals are evaluated to determine viability and justification for funding by management of CEDA and recommended to the Board of Directors for a final decision.
Viability. Viability is evaluated according to the following criteria; (a) management, (b) market, (c) project profitability, (d) sustainability, and (e) anticipated growth of the business.
Agreements. Promoters of approved projects are required to sign a loan or shareholders agreement with CEDA after having met all the conditions of approval. The business plan forms part of the agreement.
Compulsory reporting. Regular reports are required of all approved projects.
Number of loans. Successful applicants are not given more than one loan at a time and eligibility for a further loan is dependent on the successful retirement of the initial loan and the performance of the project financed, except in cases where:-

(a) payments on the existing loan are up to date;
(b) the exiting loan is performing well(i.e. The payments have always been up to-date);
(c) the financed project is performing satisfactorily,
(d) there has been proper, timeous reporting on the existing funded business from the promoter, and
(e) the new venture requiring funding will not impact on the promoter's focus on the existing funded business.

Progress to-date.

Since the project is quite new and still trying to find its feet, it is difficult to make an evaluation of its impact in terms of benefits to the agricultural sector in the study area of Gaborone and its environments. However, recently, CEDA has started to give out low cost loans to citizen entrepreneurs, but very few agricultural loans in the study area*(interview with Gaborone CEDA manager).* The two main objectives have been to help first time entrepreneurs to get started in their own private businesses, and secondly to help existing small businesses to expand.

CEDA's brief history shows that approximately 1630 loan applications had been received by the beginning of April 2002, with total loan requests totaling P838 million(US$140 mil). Of these , 229 applications had been accepted in principle, totaling P139 million(US$23mil); 383 applications had been declined, totaling P222 million(US$37 mil); 62 loans totaling P32 million(US$5.3mil) were not proceeded with because of inadequate preparation; and the balance had not yet been adjudicated. Out of the loans that had been accepted P59 million(US$10mil) had been disbursed to about 127 customers, after all the loan conditions had been met. Of these 22 were for UPA(Th*e Botswana Guardian Friday, April 26, 2002*

The main reason advanced for the 383 applications that had been declined was that they failed to meet the criteria set for the fund, e.g. applicants were not Batswana or the businesses were not viable.

The most popular sector for CEDA loans has been, in order of preference are: public transport, purchase of heavy equipment, building of hotels, lodges and tourism, and lastly agriculture.

CEDA has a strong training arm. The idea is that successful applicants should get some initial training, but CEDA staff will then follow this up. Once a new business is up and running, the training section of CEDA will offer both monitoring and mentoring services to the new citizen entrepreneur. This is in sharp contrast to some previous government schemes such as FAP and MBF, where funds for the much-needed follow up services were severely limited.

CEDA appears to have a much better chance of success than its predecessors, but only time will tell.

The only problem is that there appears to be some overlap between CEDA and a number of institutions with similar goals. This includes, Enterprise Botswana, Women's Finance House, Small Enterprise Promotion, and so on, each of which has its own area of concentration.

Table 7: Characteristics of the three Agricultural Assistance Support Programmes : A Summary.

		ALDEP (1977)	**FAP(1982-2001)**	**CEDA (2001>)**
1	Type of Investment Scheme (a) Grants/Loans (b) In-kind Support (c) Credit	Targets resource poor farmers (a) Subsidy Grant/down payment scheme (b)On-farm investment, farm packages and seasonal inputs, tractors, fencing © Grants	Focuses on both citizens and Non-citizens. (a)Grants/Capital (b)In-king support (c)Training Grants of MS and LS projects	Focuses on the development of viable, sustainable citizen owned business enterprises. (a) Loans at subsidized interest rates - No outright grants. (b) A project specific training, monitoring and mentoring programme. (c) A Venture Capital Fund
2	Eligibility/Criteria for Assistance	Resource poor farmers and those who could use inputs.	**SS**-Reserved for Batswana **MS**-Citizens and non-citizens **LS**- Citizens and Non-citizens Age- 18 years	Available to:- (a) Citizens of 18 years and above -new (b) Existing legal businesses that are owned by citizens 18 years + (c) Under Venture

				Capital, both citizens and joint ventures between citizens and foreigners.
3	Conditions of Guarantees/access to grants/support (a) Physical collateral (b) Equity contribution (c) Viability analysis (d) Administration fee (e)Group guarantee	(a) Those who could use inputs Resources poor farmers (b) 15%total package (Men) 10% of total package women. © Nil (d) Nil (e) Nil	(a) Various ▪ Deed of Hypothecation ▪ Notarian General Bond ▪ Performance Bond (b)10% (c) Yes (d)P25 (for SS) (f) NA	(a) Fixed assets funded by CEDA; other properties; sign personal guarantees or sureties in lieu of such securities. (b) Provide equity (in-kind or cash or both) * SS or MS projects will still be assisted even if equity cannot be raised. (c) Yes (d) None (e) N/A (f) Others - show commitment and confidence in project (g) Secure licences, own premises, compulsory reporting etc.
4	Level of Assistance/Loan size (a) Term (b) Interest rate (c) Period of grace (d) Degree of morocity	Grants do vary (a) Variable (b) Nil (c) Variable depending on circumstances (d) Average-high	**SS**- P500 to P75,000 (US$ 83-12500) **MS**-P75,000 - P2.0mil ($12500-333,333) **LS**- >P2.0Mil ($ 333,333 Plus) (a) 5 yrs + (b) 5% (c) 2-5 years (d) High	**SS** -100% for citizens. Loan- P500-P150,000 ($83-25,000) (a) 5 years (b) 5% (c) *Repayment Period*-Varies - Maximum 60 months/5 yrs. With Flexibility *Period of Grace*-Varies according to type of project. (d) Too soon to judge.

				MD Projects. *Loan Limits*- P150,001-P2 mil ($25,000-333,333) *Interest Rate*- 7.5% *Repayment* - Varies >7 years *Grace Period* Varies. **LS Projects.** Equity capital and/or loan. *Promoters* contribute a min. Of 25% of total project cost as equity. *Interes*t - market rates >15%
5	Products or activities financed	Arable agriculture, horticulture	Agriculture - Livestock - Arable - Repair of tractors etc. Manufacturing	Agriculture Manufacturing
6	Target Group. - Gender considerations	Low and poor households medium income Batswana of all levels especially those in rural area	- Both Male and Female Entrepreneurs (poor, average and rich). - SS projects gender biased - Female owned projects, a factor of 15% added to determine grant.	SS and MS- Reserved for Citizens LS- Non-citizens and Non citizens. Gender does not feature here.
7	Main Actors involved	1.Ministry of Agriculture 2. External - ADB and IFAD. 3.Councils Departments	Ministry of Agriculture Integrated Field Services	(a)Central Government through a CEDA office to provide loans. And a Small Business Council (b) Private Sector - Supporting services
8	Evaluation	(a) Positive - higher and sustainable yields -stabilized incomes. - 39-44,000 farmers covered.	Failure of SS/MS projects due to:- - Lack of entrepreneurial skills, managerial and technological	Too soon to judge, but already a number of people (especially the poor) have started to secure loans from this facility.

		(b) Negative. - Low poor female farmer participation - low individual income impact	capacities. - Poor market analysis - Poor monitoring - Some projects did not start or those that died as soon as funds were disbursed.	

4. GENERAL OBSERVATION OF THE FINANCIAL INTERVENTIONS FOR UA AND UPA.

4.1 POVERTY AND SOCIAL INCLUSION ANALYSIS OF THE THREE INTERVENTION PROGRAMMES.

As already seen, the above schemes do benefit a broad spectrum of people - the poor, medium and rich people. There is always something for someone as long as the individuals try to access the schemes. By and large the schemes were initiated to help the low income or poor individuals gain employment as well as raising their incomes. The level of poverty in the study area is quite pronounced. In 1997, the UNDP reported that 20% of the people living in urban areas in Botswana were considered 'poor' and 9% 'very poor'(UNDP Human Development Report 1997). In a poverty study done for the city of Gaborone(J.Plummer et.al 1999) it was reported that 40,000 people(20%) lived below the National Poverty Datum Line and that one third of these - 14,000 (about 7% of the population) were very poor.

These include a variety of people viz: unemployed, street children, tenants, youth dropouts, street vendors, unskilled workers, and the elderly and female-headed households. In both the national and Gaborone study it has been shown that the incidence of poverty is higher among women especially female-headed households. Incomes for the poor are quite low. From the interviews carried out by the researcher, it transpires that the pattern of expenditure shows that the monthly income of P100 to 400 (US$ 17 - 70) for the poor groups is insufficient to meet basic needs. It is very difficult to cover the extra costs associated with illness, retrenchment, or funerals for instance. For most poor households it is impossible to make significant changes in their lives, or to carry additional costs imposed by council(e.g. paying rates, local taxes). This expenditure pattern explains why some have opted to engage in UA and UPA to make ends meet whatever obstacles they encounter on the way.

In all the schemes outlined above efforts have been made as much as possible to take on board(become inclusive) as many of the poor as possible, though of course it is impossible to include everybody, and some remain outside the net due to thresholds imposed by these schemes.

- The schemes, apart from CEDA, are very much pro-gender in that women are given priority in the assessment of grants/loans - for example in FAP, a 15% is given to women applicants, and the Women Finance House agency also gives loans only to women applicants. This is a positive aspect of the schemes.

- Some of the schemes like ALDEP, and more recently CEDA, go so far as to even waive guarantees/collateral in cases where low income applicants cannot raise these so that they can be within the net.
- Most of the applicants who get loans from the above schemes would not qualify to get loans from the commercial banks. For example to get a loan from the commercial banks the Banking Act requires one to be 21 years and not 18 as in the schemes and secondly low income persons cannot get loans as they are taken by banks to be high risk individuals. But in the schemes, such people do qualify to get loans. Lastly the type of collateral(e.g. title deeds and the like) required by banks is much harder to get than in the schemes.
- Some schemes, like CEDA, have now started a process of educating and helping low-income persons to prepare business plans and plan applications so that their applications are not turned away. The services of the private sector are now being sourced to help in this matter.
- Interest rates charged in these schemes ranges from 5-7.5% maximum, whilst in the private commercial banks, the interest rates are between 15-21%. This provides an enabling environment for the low income applicants.

Obviously even with this generosity of government in mounting all these schemes some of the very poor cannot be reached and something will have to be done. Poverty does not seem to be letting up as the economy slides down daily. Suggestions will be made in section 6 of this report.

4.2 PORTFOLIO OF RESOURCES.

All the above schemes were and are fully sponsored by central government/donor agencies and administered by created institutions and banks. Almost all the money involved is voted for and allocated in annual budgets passed by parliament. This is only possible because the government has enormous financial resources obtained from both diamonds and the beef industry. Since some of the funds have been seen to be trickling down to poverty-stricken persons across the country, some donors and NGOs have seen it fit to lend a hand. Money has been given for certain components of the programmes; some women groups have been financed to start horticultural projects(e.g. Segoditshane River horticultural project); a poverty study(Gaborone) was carried out with the support of DFID to identify marginalized groups who could be helped etc. Further, interest rates on loans are subsidized hence making it easier for low-income persons to service their loans and hence their projects.

Since there is no bottomless pit from which funds can always be given to borrowers(e.g. UP and UPA farmers), government has slowly shifted from giving outright grants or a mixture of grants and loans(as in FAP, and ALDEP) to giving loans(CEDA), which are well monitored and controlled through a bank. Even subsidized interest rates have been raised from 5% to 7.5% to get nearer to commercial banks. Strong monitoring is now followed to ensure that those who borrow funds return them so that these funds can be ploughed back into the kitty. Those who fall behind will have to face the full strength of the authorities, though every effort will be made to ensure that marginalised groups are not left in the cold.

To ensure that the marginalized persons can make it, they have now introduced a system of educating them on how to write projects, draw up business plans and even learn simple accounting so that they can start and be able to run their own projects. The days of 'free' money are gone. This is the only way to make the programmes sustainable in the long run.

4.3 ACTOR ANALYSIS.

In the three schemes outlined above several actors have played a key role in helping the would be farmers to start and do business.

- Chief of these actors is Central Government, which has hatched the schemes, provided funds, personnel, offices and other support like training and extension work. Various ministries, including the Ministry of Agriculture(ALDEP and FAP projects SS and MS) and Ministry of Finance Planning and Development for Large Scale FAP and departments.
- Local Councils - both urban and local councils administer ALDEP and FAP.
- Financial institutions, like (a) Womens Finance House which provides small scale funds for women and women groups which are intent to engage in business/agriculture, or (b) the National Development Bank, a commercial bank owned by government, through which some aspects of the schemes like FAP and now CEDA were and still are managed. The NDB has been responsible for disbursing project funds to recipients. Lastly, the Africa Development Bank has also helped in providing donor money for some horticultural and agricultural projects in the study area.
- Donors - Some donors and donor agencies like FAO, DIFID, and NGOs like Permaculture and Red Cross have provided financial, technical and other support to help farmers do business.
- The private sector and parastatals (like the Faculty of Agriculture, University of Botswana) are slowly playing a role in training of farmers in various aspects of agriculture, management, accounting, business etc.
- CBOs have been active in helping with ALDEP.

Table 8: Actor analysis.

Actor	**ALDEP**	**FAP**	**CEDA**
Central Government	Money, equipment	Funds, personnel Subsidy/grants	Funds(Loans), personnel,offices,training
Local government	Technical help, land, facilitation	Land allocation, control	Land allocation, control
Financial institutions	ADB, IFAD	Administration of Funds, funds	Administration of funds, topping up of funds
Donors	Little technical help	Some technical help	Some technical help
Private sector	Nil	Some little funding to supplement funds	Fund supplementation, training

CBOs	Technical help	Some technical help	Material help

4.4 INSTITUTIONALISATION.

The three schemes outlined above have been instrumental in influencing government policy in giving material and financial help to low income persons in order to create employment, eradicate poverty, encourage food sufficiency and increase incomes through manufacturing or agriculture (UA or UPA). This is the hinge pin of government policy in import substitution, food sufficiency and greater participation of its citizens in enterprises.

ALDEP has featured in all National Development Plans as a programme that can improve the productive capacity of resource-poor farmers in the arable sub-sector (GoB, National Plan 8 - 1997-2003, pp.235) and the government is not going to end it any time soon.

The FAP was designed to assist with incentives new and expanding enterprises to establish financially and economically viable projects, which could be self financing after the end of the government assistance. Until its demise in 2001, the programme had remained an important aspect of industrial policy. It had been the focus of attracting both domestic and foreign investors into the country.

The FAP package of incentives had several objectives. These included creating sustainable employment for unskilled workers, developing an outward-oriented manufacturing enterprise or efficient import substitution production, promoting active participation of citizens in the development process, upgrading the level of skills of citizens through training and assisting in the development of local entrepreneurial ship. FAP was identified as a major policy instrument to achieve these objectives through the channeling of financial resources from traditional to non-traditional sectors of the economy. "The programme constitutes a major component of the Government's industrial development strategy." (GoB, FAP Annual Report 1996, pg.3).

The same sentiments expressed above are similar to those of the CEDA programme, which replaced FAP.

What is needed in all these schemes is to channel and allocate funds specifically for UA or UPA so that the specific benefits of such ventures can be reaped.

4.5 THE EFFECTIVENESS OF CREDIT AND/OR OTHER TYPES OF INVESTMENT IN UA AND UPA.

In the study it has been revealed that a variety of financial and other incentives have been given to help individual people to make a living out of UA or UPA. In this section we examine the pros and cons of these interventions.

(a) Grants

In the case study area it has been found that financial grants were the hallmarks of FAP and to a little extent, ALDEP. Such grants are useful where the people are extremely poor and cannot raise credit through the formal or the informal system. In this case such grants help individuals to start UA or UPA and either supplement incomes, get gainful employment and/or supplement food. However a

reliance on grants leads to complacency and in the end can kill the spirit of self-reliance. This has already occurred in Botswana where people have taken FAP grants as a free for all financial handouts.

(b) Loans

Loans are the only financial assistance mechanisms that have sustainability in the long run. Obviously they suit middle and high-income earners. People are encouraged to work hard in order to pay back such loans. This is the new philosophy of CEDA.

(c) Input supports

Input supports in agriculture like tractors, seeds, ploughs, fertilizers, fencing materials etc. are some of the incentives under the ALDEP programme. These are justified where promoters cannot afford to buy them or are given by government in lieu of money to discourage individuals from squandering monetary grants. Targeted inputs can be quite effective in getting people started.

(d) Tax incentives

Tax incentives are useful in attracting major investors in agriculture and manufacturing. If properly targeted and selective, they can be very effective in creating employment and incomes. However, the time factor should not be more than 3-5 years, otherwise they can be abused as in the case of the Large Scale FAP grants/Loans and CEDA loans.

(e) Cooperatives

Cooperatives or people working in groups can be quite effective means of getting people started in UA and UPA. Government, donor agencies, and NGOs find it better to lend to cooperatives than to individuals. A good example is the Women's Affairs Unit, of the Ministry of Home Affairs, which only lends agricultural funds to women's groups and not individuals. This way, funds are better utilized and outputs are higher.

In Botswana, the restructuring of the National Development Bank and the liquidation of the Botswana Cooperative Bank for example, has not adequately addressed the credit needs of small farmers (GoB, 1997, pp.247). It is suggested that the cooperative bank should be resurrected and further, imparting managerial skills should strengthen cooperatives. Further, government should intensify promotion of institutional Savings and Credit Cooperatives to improve domestic savings mobilization for productive investments and improved access to credit.

5. CONCLUSION AND RECOMMENDATIONS.

UA and UPA in Greater Gaborone has been gaining currency in the study area over the years. More and more people are engaging in this activity, some for survival, like the poor and marginalised groups and some as a means of amassing wealth, like the many commercial farmers in the peri-urban areas. Certainly UPA has created jobs, provided income and alleviated poverty for the low income and has also helped towards food sufficiency in certain sectors e.g. Eggs and poultry.

From the case study above it is clear that UPA in Botswana and in Greater Gaborone in particular, has over the years being sourcing funds from a variety of avenues - subsidies and farm inputs from the ALDEP and ARAP programmes; outright financial grants for the poverty alleviation programme and drought relief and grants combined with loans for the small scale, medium scale and large scale agricultural projects through the FAP; and the latest outright loans from the CEDA programme. Other financial help in the form of loans and grants that has come from the MoA through its Agricultural Extension Programme (AE10) which gave small loans to small scale farming groups; some loans and grants from NGOs and finally donor money from international organizations (FAO) and banks e.g. the ADB, as well as commercial banks operating in the capital. All these sources of funds have to some extent reached the objectives of job creation, food supplementation and poverty alleviation. Unfortunately many of these schemes did suffer problems of poor management, monitoring, and review and follow up, otherwise their impacts could have been much higher.

Another important problem was poor business and management skills coupled by lack of commitment on the part of recipients such that some projects either never got off the ground or those that did, little was done to show for the money given. For example in the case of the FAP funds, always more money was committed for agricultural projects than was disbursed.

The money has been used in a variety of projects, both small scale and large scale. The experience shows that more women participate in small scale than medium and large-scale projects where the money is much greater. The main activities have been - poultry, dairy, horticulture and processing of food products. Again, it has been shown that the commercial sector seems to have benefited most as benefactors are more educated, apply higher technology and can meet financial requirements more than small-scale farmers do.

Although some special financial favours have been given to women farmers, it is found that the large slice of funds still goes to men operators. Women are still marginalised and steps have to be taken to redress this situation.

Problems faced by urban farmers.

Many farmers who engage in UPA face many problems especially as far as credit and finance is concerned. These are the major problems: -

- *Lack of access to agricultural credit.* In spite of mechanisms like the ALDEP, FAP and now the CEDA, being available, most small-scale farmers cannot access these funds due to the down payment (equity) they required to put down. Others lack collateral required by the banks as security. The lack of credit results in lack of take up and high failure rates especially in livestock production, low yields and non-investment in higher yielding systems.
- *Price of Inputs.* The price of inputs like seeds, chicks, and fertilizers is quite expensive and for the small farmer, this is a big problem.
- *Feed price.* The price of compounded feed for animals is too high so farmers opt out.
- *Unorganized marketing.* Small-scale farmers that constitute the majority have difficulties selling their produce to government institutions and big retail shops, which favour dealing with large-scale producers. Generally, government

institutions buy on credit and take long to pay, thus leaving farmers with little cash to buy stock of feed and other inputs.

- *Inadequate facilities.* Due to limited funds, farmers cannot afford adequate facilities for their activities. For example, most small-scale broiler farmer's slaughter birds in the open under unhygienic conditions, as they cannot afford slaughterhouses and refrigeration. Because of the lack of such facilities some broiler producers around Gaborone have resorted to contract one of the big broiler producers (Tswana Pride) to do the slaughtering for them. This is also true of the piggery industry where small-scale farmers are forced to sell to Senn Foods as they cannot afford slaughter facilitates.
- *Lack of land and where available expensive.* A number of farmers stated that their agricultural plots are too small in area to produce significant quantities of foodstuffs, prohibit expansion of the commercial enterprises and create unhygienic problems for poultry producers whose farms are crowded together. Where land was available, it was accessible (if foreigners) and if available it is expensive to buy and service. Serving costs are prohibitively high in and around the city.
- *Land tenure*- Issues of land allocation, tenure and ownership have also been noted. In addition to the inadequate servicing of agricultural plots, it was felt that land application procedures particularly those administered by the Land Boards are ad hoc, time consuming and mismanaged.
- *Lack of water and electricity.* Farmers noted the lack and/or expense of both water and electricity as being a major hindrance to productivity. Most of the farms make use of off-plot standpipes; this consumes a significant amount of time and energy. Others use private vendors - This was another problem raised during interview sessions by farmers.
- *Others feel the pressure of urban authorities to convert land use* in anticipation of increasing urban development.
- *Theft* - Others mentioned that theft of their produce did affect their businesses and hence their survival.

6.0 SUGGESTIONS AND RECOMMENDATIONS

6. 1. Policy intervention.

- There is need for policy interventions that will support improving access to finance for UPA. Both town planners and other policy makers should come up with proper framework and regulations to incorporate UPA in their planning strategies.
  - The strategy of financing UA and UPA could be two pronged: (a) create supportive activities leading to credit procurement (especially for the poor) and (b) create required credit lines.
    The necessary actions to be taken include:-
  - Adjust business plan design and preparation to requirements of financing institutions;
- Create financing lines tailored to the conditions of 'new entrants' (consider for example the use of expected produce output as guarantee, etc);

- Create a mechanism of supervised credit (technical assistance integrated into the loan mechanism);
- Use leverage of community lobbying in the financial institutions and
- Develop, support management and supervise operations of local saving and loans units.

  - There is need to examine the returns to investment government should target serious producers and avoid wasteful allocation of limited land and financial resources to projects that cannot succeed. Credit support systems should be put in place to provide farmers with various credit options for developing their enterprises. Farmers should be taught basic knowledge on bookkeeping and business skills so that they can be successful in their businesses.
  - The ALDEP assistance programme should be replaced by financial and other measures targeted to support rain fed farmers in the formation of land cultivation groups and the incorporation of regional service centers for mechanized cultivation and other services.
  - It is recommended that the existing Agricultural Credit Guarantee Scheme is expanded and a crop loss insurance fund is introduced to compensate rain fed farmers for loss of income due to extreme climatic events. This should however apply only to lands suitable for viable rain fed crop production, be conditional on the farmer, or farmers, adopting the recommended crop production practices, farming the minimum economically viable cultivation unit and paying an agreed premium to the insurance fund

  - *Marketing*- Farmers, especially small-scale farmers, need information on basics of marketing, market information, market segmentation and market targeting and positioning. It is necessary to conduct farms and business management courses for farmers with a view to improving their business and marketing skills. It is envisaged that such courses will provide the necessary management backup system to ensure success of projects. Again, both government, local government and the NGO community could help farmers with marketing of their produce so that they can make greater sales.

  - *Provision of Marketing Support.*

    It is also suggested that both government, parastatals like Botswana Agricultural Marketing Board, Botswana Chamber of Commerce and the private sector could provide market support, for example: open up a market for fresh produce like the one in Lobatse town; quality control; image and promotion etc. People could be organized to form cooperatives so as to function better.

Box 3 : MARKET UNCERTAINTY - STRATEGIES AND ACTIONS

(An example from the National Agriculture Master Plan-Botswana)

STRATEGY	**ACTIONS.**
Make information available to construct a base knowledge of	Provide appropriate market information, elaborated according to local farmers' needs: Expected farm-gate prices, traded

market situation	quantities, names of traders, procedures, possibilities, competitors, limitations etc.
Make farmers aware of horticulture/animal farming profitability potential and operating characteristics	Evaluate with direct participation of farmers the technical, commercial and financial viability of horticulture/animal farming business. Devise a specific business plan
Establish conceivable problems in the process of marketing and identify possible solutions. Diminish market risk perception by knowledge. Translate risk perception into uncertainty evaluation and handling	With participation of farmers assess potential and reachable targets and determine bottlenecks. Jointly identify possible ways to resolve constraints. Train farmers by simulation and learning negotiation principles, techniques and role-playing
Shorten market-farmer psychological distance	Arrange visits to markets and meetings between farmers and traders and visit of farmers to the selling points.
Diminish uncertainty in the availability of inputs	During planning stage identify suppliers of inputs and clarify supply schedule. Plan inputs procurement and stock policy accordingly
Plan production based on *participative* demand oriented planning	Prepare production plans by joint planning of trader and farmer, including products and packaging specifications, supply schedule and procedures, payment terms etc. If possible establish a contract agreement or, at least, an agreement arrangement document.
Diminish risk using future and option markets.	Stimulate and help the build-up of associative procurement of inputs: production equipment, finance, post-harvesting, transportation, management etc.

Source: GoB, NAMPAD, Vol.2 pp. 10

- *Coordination*

  Promotion of urban agriculture needs action at different levels. That is, farmers through empowerment and training and meeting their information needs; the extension level through training in various areas of specialization and urban planners, municipal officers and decision-makers through changing perception and creating awareness. All stakeholders involved in UPA should have knowledge on this activity. Monitoring and demonstration should be offered after training. For achieving better yields, research on favorable crops for particular urban areas should be done and farmers advised on what to produce in which season and where.

  Institutional cooperation is needed. Different ministries, government departments and private institutions should work in harmony to improve agriculture partnerships between the government and NGOs. This will ensure sustainability of urban agricultural activities. As a team they can address problems associated with infrastructure, markets, finance, land, research etc. Therefore future actions include workshops on urban agriculture financing and food security for decision-makers and planners, farmers and extension workers.
- To enable horticultural producers to compete with imported produce, the Standardization and Quality assurance Division should be strengthened and develop standards for all the vegetable crops. This will stop unfair competition of dumping poor quality produce in the country.

- There is need to sensitize the people of Botswana especially in urban and peri-urban areas, such as this case study area, about the value of recycling resources such as waste-water and other refuse and this can be done through government policy. This way they will save on farm inputs such as fertilizers.

- **Specific Sources and mechanisms of the investment needed for UA.**

As already seen in the three intervention mechanisms, agricultural support is given whether it is in the rural areas or in the urban areas. No specific agricultural support programme to-date has been introduced for UA or UPA. This may have functioned up to now, but it is highly recommended that specific sources and mechanisms should be introduced to finance UA and UPA as it has peculiar and specific characteristics warranting a separate treatment. For sure credit/investment for urban farming should take other forms than credit for peri-urban farming. This is so when we look at the scarcity of land in urban areas. People practicing UA have to complete for scarce and expensive land facing stiff competition from other land uses. Municipalities can only make such land accessible to the poor by zoning it as such, subsiding its price, servicing the land and by relaxing some of the stringent town planning and environmental laws currently in use. If market forces are left to operate, then UA will not see the light of day in the urban areas. UA farmers will be squeezed out.

- **How to improve impact of the financial interventions.**

From the experience of the three intervention mechanisms, it has proven to be: -

- More financially beneficial to support commercial farming in the peri-urban areas versus home consumption as outputs are greater (e.g. Egg, milk and meat production) and hence more money to into the economy; better chances of achieving food sufficiency, and more employment generation. Further there is less defaulting than in cases of small-scale farm investments.
- Again, in UPA, it is better to invest in animal production especially poultry keeping than in vegetables as such activities are less prone to problems of the harsh weather obtaining in Botswana. In the study area, as in most parts of Botswana, water is quite scarce and if available is expensive. If one is relying on rain fed crops, he or she is at the mercy of rain, and more often than not, rain never comes or if it does it is erratic or plays havoc with farmers. On the other hand in UA it is better to concentrate on vegetable growing as water is available through the municipal system, plots are nearby so that operatives do not have to walk long distances and lastly such a land use is more acceptable by town planners and the general public than animal farming.
- Lastly, large scale farming benefits high income owners and such operatives should be encouraged to enter such business in the peri-urban areas; whilst small scale farming should be encouraged for the small scale, poverty stricken farmers (urban or peri-urban) who want to supplement their daily food or just raise the meager incomes. Both groups should have access to appropriate credit/investment to further their businesses.

6.2 Role of the Municipal Council, Central Government and Parastatal Institutions.

- Both the government and the Gaborone City Council should reserve land in their land use plans for agricultural purposes. Hence al fertile land should be reserved for agricultural purposes - intensive operations such as horticulture, poultry, pig rearing and dairy production. The challenge however is that such activities may cause pollution in some cases and hence there is need to put in place management systems that minimizes these side effects. For instance it is understood that nitrates from both human and livestock excreta have polluted some well fields. Bakker et.al 2000 warned that when UA is not practiced properly the environmental and health risks can stem from the following: Poor handling of agro-chemicals, poor selection of crop and location without any regard for the ambient pollution in the air or soil or water, production of livestock near the home, poor application of unsorted or poorly treated waste on sensitive crops and failure to adhere to proper handling procedure during planting, harvesting, marketing and distribution. Therefore it is important for all stakeholders to be aware and understand these problems, how and why they occur and find appropriate solutions. Also they must be located such that they do not cause any undue discomfort to urban dwellers.
- *Threat to biodiversity.* As more and more lands are opened up for any economic activity especially agriculture, more and more ecosystems are destroyed. As signatories to the convention on Biodiversity, the Government of Botswana must consider it and minimize the elimination of the ecosystems as flood plains and river valleys are usually the only areas left in urban areas for agriculture and refuge for bird species and insects.
- As a matter of urgency, information must be collected and collated so that production areas in urban and peri-urban areas are well mapped out to avoid the land being used for other purposes. Maybe this land may be gazetted as agricultural land so that it cannot be converted to other uses. In addition the procedure of how this land is to be allocated must be developed and be monitored.
- *Land Rates* on peri-urban land should be reduced to encourage farmers to enter in this activity. This is the concern of farmers in Gaborone where agricultural plots that were incorporated in the city area like Gaborone North and Moshawa Farms, the land rates are reported to be high hindering farming in this area marginally profitable. It is reported that although the Gaborone City Council collects the rates it provides no services in this area.
- *Reduce water rates for UPA* - First of all it must be noted that Water Utilities Corporation and the Department of Water Affairs have no mandate to provide water for agricultural purposes. There is no policy that regulates the provision of raw water for agricultural purposes. In some areas like Gaborone North, farmers develop their own water sources. This is a major challenge for urban and peri-urban farming. Where this water is availed through special permission the tariffs are high. In countries like Zimbabwe and South Africa there are special rates for agriculture but in Botswana domestic rates apply. A related recommendation is the use of recycled water for vegetable growing such as the proposed Glen Valley

area. Further water harvesting from rooftops could be used for backyard gardening along the lines of ALDEP in the field farm areas. This could also reduce floods and soils erosion.

- Wastewater from Gaborone is the most readily available new source of water for irrigation. To enable its utilization, the government should as soon as possible designate land for irrigation in close proximity to sewage treatment plants(e.g. Glen Valley) and formulate a national wastewater utilization master plan, including the institutional, financial and legal instruments necessary for its implementation.
- *Provide affordable electricity for agricultural activities.* Most of the farms in urban and peri-urban areas are not serviced with electricity and therefore must pay for the power grid extension to their farms and as Botswana Power corporation operates on cost recovery basis the farmer has to pay for all the costs. BPC will however maintain the infrastructure thereafter. Farmers are of the view that the whole cost of reticulating electricity is high more so that ownership of the whole infrastructure stays with BPC and the farmer has very little control over it. The tariffs are also very high because farmers have to pay commercial rates and there is no special provision for agricultural enterprise. Both this case and that of high water rates require the review of policies of parastatals that provide these utilities so that action can be taken
- *Post harvest crop handling facilities.*
  These should be provided and their implementation should be supported by government through:-
  - designation of land,
  - erection of 'factory shells' for rent,
  - provision of access roads, power lines and a source of potable water for every facility, regular provision of sound marketing information to the operators of marketing facilities.

6.3. The role of NGOs in financing and supporting UPA

Some community groups have benefited financially and in other ways from NGOs, but such help is not sustainable as most NGOs are pulling out and funding is becoming scarce. Hence:-

- The roles of NGOs in the future will be around facilitating communities in urban areas to set up community groups to initiate income generating urban agriculture projects.
- They will provide services to these CBOs such as sourcing funding from donors and government schemes, capacity building and training and help in management in the early inception stage of the project.
- Another role of NGOs could be to help set up cooperatives involved in processing and adding value to products.
- They could also help in campaigning, advocacy and lobbying around the whole issue of urban agriculture and to build links with similar organizations in other countries and regionally such as PELUM

6.4 How to reach the urban poor and vulnerable groups, like women: Suggestions.

General

An examination of the three schemes shows that virtually everybody can access the intervention mechanisms. However, the main bone of contention is how can these reach the very poor in society? The best way to do this is :-

- to relax some of the thresholds that have been established, e.g. Collateral required could even be waived.
- relax the system of guarantees for one to get a loan for UA or UPA
- help individuals in registering their businesses and in preparing business plans. Sample plans could be prepared with the help of NGOs, parastatals or even donor agencies so that they can be obtained off the shelf and modified to fit the case in point;
- Have demonstration farms and people can learn from them.
- Solicit the help of the private sector or CBOs to impart knowledge on various aspects of agricultural finance.
- Finally adopt appropriate technology in agricultural farming.

Access to credit by women.

There is overwhelming evidence that agricultural credit is limited and access by women to it is negligible(MoA 1991; Botswana College of Agriculture 1996). The law states that married women are legal minors and must have the signature of their husband in order to apply for credit. This might be time consuming, especially for a de-facto FHH where the husband is absent. If a husband refuses to sign, or the applicant is afraid that a refusal might be forthcoming, she may be dissuaded from applying.

Although the shortage of agricultural credit is not, per se, gender specific, it is a major constraint for married women. Only 1% of respondents in the 1993 agricultural census had applied for credit, 29% of this group was women; of these, 18% received credit. Of those women who applied, almost all were single (never married) or widowed. It is expected that the reviewed of the laws affecting women will consider this.

The accumulation of savings is limited by the lack of economic infrastructure in rural areas. Savings are taken through rural Post Offices, but accounts cannot be operated for business purposes and the maximum deposit is P8,000(US$1333). Commercial banks are confined to the main centers like Gaborone. For women who are less mobile than men, access to these financial services is likely to be restructured.

A related issue is that many government intervention programmes, such as ALDEP and FAP, reviewed above, require a small contribution from the participant, justified on the grounds that this increases commitment. Women have difficulty meeting this criteria due to the higher transaction costs they face in accessing 'start up' funds.

The National Development Bank is the institution, which is responsible for disbursing the FAP/CEDA funds, and it provides loans for large numbers of entrepreneurs. However it receives far fewer applications from women, and many rejected because of 'lack of feasibility'(*personal interview*). Meanwhile, there has been declining access to smallholder agricultural credit in the parastatal sector following the closure of the BCB, and the restructuring the NDB. Some individual cooperatives are still active, and these appear to be the main source of credit for the few who have loans. The Women's Finance

House , operating out of Gaborone has 1800 members, but only part of their portfolio is in agriculture, and this is mainly limited to poultry, either as co-financing for FAP projects or for projects that are too small to be funded by FAP.

Suggestions on means to reducing the costs of obtaining loan.

- In order to overcome the equity bias against women in securing agricultural loans, special provisions for women farmers are required. In the past, access to working capital for self-employment was largely influenced by FAP. Now that FAP is ended, that *preferential treatment for women* is also gone but it is suggested that *CEDA* should think of introducing the same privilege. There may be an equity argument for a separate division of the CEDA for women applicants.
- *Ensure that changes in legislation governing women's property rights - concentrate on equal rights to own land and obtain credit- is implemented without delay.*
  A legal framework giving equal property rights to women and men is a precondition to the success of other gender-related policies, and may be all that is required to level the gender playing field. Certainly other measures to compensate for gender inequality will be more expensive to implement and less effective if they run against the grain of either common practice or legal provisions. The legislative revisions now being considered are therefore to be welcomed.
- As recommended in the *review of laws in 1998*, women married in community of property should have full legal capacity to, for instance, borrow money from a financial institutions without the consent of their husbands. This way they can venture into UA or UPA without undue hindrance.
- It may be more appropriate to consider the establishment of entirely new mechanisms by which women farmers can access finance; however, not through direct provision of government loans as these are often perceived as grants and repayment rates are likely to be low. Instead, government should encourage the provision of preferential loans to women farmers through NGOs and the private sector. International experience suggests that women tend to be more credit worthy than men and that rural credit schemes for women are particularly successful where applicants borrow as a group. Given that women are constrained by lack of collateral, government should investigate opportunities to develop group-lending organizations through the NGO sector and encourage reduced collateral requirements for lending to women groups. Such a programme should be directed towards engaging women in non-traditional and agri-processing activities with low labour requirements.
- There is an equity argument for subsidizing training in business skills appropriate to small-scale enterprises for women (and for men) from low-income households.
- In recognizing the role of women in urban agriculture, producers' associations must be gender balanced. Gender mainstreaming strategies should be incorporated into urban and peri-urban and even rural horticultural programmes in order to bring about equity and equality in economic endeavors. Being given representation in strategic institutions should strengthen women participation and economic empowerment, as they are the major producers or workers in horticulture. They should be finally independent and be able to lobby freely. The associations should consider investing in inputs supplies and making them accessible to their membership, as well as sharing resources, i.e. Tractors, transport etc.

6.5 Replicability.

All in all it can be said that the approaches cited above can be replicated elsewhere in this and other similar countries. Three elements of replicability are outlined:

- *Financial Sustainability.*
  The experience might be difficult to replicate in countries that are not as well off as Botswana (having surplus money to give as grants or low interest loans) or do not have transparent, honest civil service that has very little levels of corruption as enjoyed in this country. Botswana has zero tolerance for corruption and its effect can be seen across the entire country. Millions of dollars have been spent on these schemes whilst returns have sometimes been little to justify the expenditure. There have even been cases whereby beneficiaries got off scott free without paying back loan money. What is needed is greater targeting of loans to the appropriate persons, good monitoring of projects and feedback. This is the sustainable way to go.
- *Institutional sustainability*
  As long as the schemes are being run through the government machinery the element of laxity in monitoring, follow up, fixing problems etc will continue to dodge success. What is needed is like the provisions of the CEDA programme, which is in the process of establishing itself as a fully-fledged individual entity operating like a commercial bank and not as a government department. The principles of corporate business are to be the norm here.
- *Governance or internal management.*
  Adequate and appropriate mechanisms of internal management are a prerequisite of future success of both the ALDEP and CEDA programmes. Procedures have to be streamlined, red tape eliminated, personnel trained and officers running the programmes to adopt business-like approaches to management. All stakeholders have to be involved in the implementation of these schemes.

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APPENDIXES.

Appendix 1 - FAP Small Scale Projects (see separate Table)
Appendix 2 - FAP Medium Scale Projects (see separate Table)

Appendix 3 - FAP Large Scale Projects (see separate Table)

Appendix 4.
ACHIEVEMENTS OF FAP - NATIONAL FIGURES.

Since its inception in 1982, grants have been on the rise. The total amount of expenditure on FAP grants has risen by 216% since the third evaluation; from P32m in 1993/94 to P102 m in 1998/99. The increase in disbursement has been mostly due to increased grants to Small-Scale enterprises; grants for SS FAP recipient's rose from P10m in 1993/94 to P69 in 1998/99, an increase of 560%. In contrast, grants paid out to Medium and Large-Scale enterprises have shown little growth, rising from P21m in 1993/94 to P33 m in 1998/99, an increase of only 50%. As a result, grants to SS FAP enterprises have increased sharply as a proportion of total grants(GoB/BIDPA 2000, pp.xii). SS grants accounted for 29% of total grants in 1994/95, rising to 68% of total grants in 1998/99; hence MLS grants fell from 71% to 32% of the total over the same period. Whereas MLS grants have accounted for the majority of FAP grant expenditure between its establishments in 1982 and 1996/97, since 1997/98 more money has been spent on SS grants than MLS grants.

It is evident that disbursements are much lower than commitments (see Table….)the gap between the two is due to projects that are approved but never implemented, and partly to the lag between approval and disbursements under the five-year MLS-FAP programme.

A total of P1.02 billion has been approved fro FAP projects between the inception of the scheme in 1982 and the 1998/99 financial year. Of this, P754m was for MLS and P302 was for SS. However, total payments under FAP only came to 49% of this figure, P520m, of which P310m was for MLS and P232m was for SS.

FAP GRANT COMMITMENTS AND DISBURSEMENTS.

Year	Grants	Commitments (P'000)	Disbursements(P'000).
1982	281	2200	1501
1983	317	6882	1560
1984	248	7901	2724
1985	281	6611	4187
1986	309	12060	7997
1987	331	16678	9422
1988	239	19187	9228
1989	318	38307	13435
1990	622	30765	20268
1991	631	66203	30490
1992	549	54065	28177
1993	485	72308	32196
1994	n/a	n/a	n/a
1995	970	176953	54859
1996	2110	108616	74451
1997	2176	222724	108759
1998	2119	181681	101653
Total	11,986	1,023,140	500906

Source: GoB 2000- Review of FAP, pp35.
Until 1998/99, the amount spent on FAP grants has frequently exceeded the initial budget allocation.

The 2000 BIDPA reports that the economic impact of FAP in the agricultural sector, including urban and peri-urban agriculture, in promoting sustainable enterprises in the horticultural, poultry and dairy sectors, it seems that it has contributed to enhancing Botswana's move towards self-sufficy in the poultry sector, and to a lesser extent in horticulture and dairy sectors.
A total of P1.02 billion has been approved for FAP projects between the inception of the scheme in 1982 and the 1998/99 financial year. Of this, P754 was for MLS and P302 was for SS. However, total payments under FAP only came to 49% of this figure, P520, of which P310 was for MLS and P232 was for SS(GoB, 2000 pp.33).