

# University of Botswana

## Urban and Regional Planning Programme

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This research report is presented in five sections. Section 1 presents background information on political, social and economic conditions in Botswana which give rise to the critical issues that warrant planning intervention and, subsequently, the appropriate planning education. Section 2 examines the practice of spatial planning in Botswana and how emerging issues have informed planning education. Section 3 looks at the formal planning system in Botswana. Section 4 offers an in-depth review of the experience of planning education in Botswana and how it links to planning practice. Section 5 charts the way forward for the planning education programme in Botswana.

### **1. Introduction to socio-economic conditions in Botswana**

#### **1.1 The geographical context**

Botswana is landlocked and shares borders with Zimbabwe, South Africa, Namibia and Zambia. The country covers a total land surface area of 582 000 km<sup>2</sup>, but about two-thirds of this area is covered with the thick sand layers of the Kalahari Desert. There is an almost complete absence of surface water. Poor soils and unreliable rains discourage arable agriculture, though this is precisely what needs to be developed. Drought is a regular occurrence and disastrously affects the fragile food and agricultural situation in the country. Before the discovery of minerals, 90% of Botswana's exports were beef and beef products.

#### **1.2 Government and political conditions**

Botswana has a flourishing multi-party constitutional democracy. Each of the elections since independence has been freely and fairly contested and has been held on schedule. The country's minority groups participate freely in the political process. There are three main parties and a number of smaller parties. The openness of the country's political system has been a significant factor in Botswana's stability and economic growth. General elections are held every five years. The next general election is expected to be held in October 2009.

The president has executive power and is chosen by the National Assembly following countrywide legislative elections. The National Assembly has 57 elected and 4 specially elected members; it is expanded following each census (a census is conducted every 10 years; the most recent one was conducted in 2001).

The advisory House of Chiefs represents the 8 principal sub-groups of the Batswana tribes, 5 members specially elected by the president, and 22 members elected from designated regions. The elected members hold office for a period of only 5 years whereas the 8 principal chiefs are members for life. A draft of any National Assembly Bill of tribal concern must be referred to the House of Chiefs for advisory opinion. Chiefs and other leaders preside over customary traditional courts, though all persons have the right to request that their cases be considered under the formal British-based legal system.

The roots of Botswana's democracy lie in Setswana traditions, exemplified by the *Kgotla*, or village council, in which the powers of traditional leaders are limited by custom and law. Botswana's High

Court has general civil and criminal jurisdiction. Judges are appointed by the president and may be removed only for cause and after a hearing. The Constitution has a code of fundamental human rights enforced by the courts, and Botswana has a good human rights record.

Below the central level, Botswana has local government structures. Local government at the district level is understood to include four organisations of devolution and/or deconcentration: District Administration (established by 1965 Act of Parliament), District/Town Councils (1965 Act), Land Boards (established by 1968/1970 Act) and Tribal Administration (1965 Act).

District Administration (headed by a District Commissioner (DC)), is an instrument of deconcentration. It exercises delegated authority from the central government and performs a central role in district-level governance. The DC plays a key role in rural development and the government has assigned a key role to the office of the DC in coordinating the formulation, implementation and monitoring of district development plans.

District councils are statutory bodies and perform the following duties: administration of primary education, primary health services, construction and maintenance of rural roads, village water supply, community development and social welfare. They are also responsible for sanitation services, administration of self-help housing agencies, the remote area development programme and labour-intensive drought relief projects. The councillors are elected every five years during parliamentary elections.

A presidential directive established the District Development Committee (DDC) in 1970, under the chairmanship of the DC. It is the most significant institution at the district level for coordination of development activities. In order for the DDC to function well it has the support of many other sub-committees, which usually report their activities during meetings.

Land boards were established in Botswana in 1970 as statutory bodies under the Tribal Land Act, which took away the exclusive powers of chiefs to allocate tribal land and gave them to these newly elected bodies. The Land Boards, elected every five years, hold tribal land in trust and allocate it for residential, commercial, agricultural, industrial and general development purposes. Chiefs are still involved in land management through Land Overseers.

Tribal administration is the fourth major local government institution in Botswana. Chiefs head tribal administration. Although the powers and functions of chiefs have been reduced over a period of time since independence, they continue to perform significant functions. They provide leadership in maintaining their communities' customs and traditions, serve as spokespersons for their communities on issues of custom, and preside over the *Kgotla* (traditional meeting place) where community views are sought.

The Ministry of Local Government is the focal point in the central government for planning and coordination of local authorities. This ministry coordinates national policies related to local government activities and liaises with other central government ministries.

### ***Vertical and horizontal linkages: central-local government relations***

The ideal balance between centralisation and decentralisation has been difficult to realise in practice, and centralisation has been a dominant feature of governance practices in African countries. Although Botswana has a good track record of democratic governance and the government has formally committed itself to promoting democratic decentralisation, the strength of decentralised institutions remains limited (GoB 2002: 12). Central-local government relations in Botswana continue to be characterised by a strong and dominant centre. The capacity of local government remains limited due to its dependence on the central government for financial resources and manpower, the nature of financial and personnel management, inadequate local-level leadership, dependence on the

contribution of central government ministries, ineffective vertical and horizontal linkages, and inadequate grassroots participation (GoB 2002: 12).

The financial strength of local government in Botswana is limited. Although the recurrent expenditure of local government units has been growing steadily, their own independent sources of revenue are limited. They do receive 100% grants for capital expenditure and between 45% and 65% for recurrent expenditure from central government.

### *Foreign relations*

Botswana puts a premium on economic and political integration in Southern Africa. It seeks to make the Southern African Development Community (SADC) a working vehicle for economic development, and promotes efforts to make the region self-policing in terms of preventative diplomacy, conflict resolution and good governance. Botswana joins the African consensus on most major international matters and is a member of international organisations such as the United Nations and the African Union (AU). In 2008, Botswana has taken a leadership role within SADC in advocating for a resolution of the crisis in Zimbabwe that fully reflects the will of the Zimbabwean people.

## **1.3 Social conditions**

### *Population*

The population of Botswana (50.8% rural and 49.2% urban) is 1.8 million people and is growing at the rate of 3.5% per annum. The population is heavily skewed towards the urban areas such as Gaborone, Francistown, Selibe Phikwe, and Lobatse. The population of Gaborone in 2008 was almost 250 000 people. The age structure of the population is youthful, with children under the age of 15 constituting 40.4% of the total population in 2001. Consequently, the proportion of the population in the age group 15–64 increased from 46.9% in 1971 to 56.6% in 2001, while the proportion of the elderly (65+ years) decreased from 5.6% in 1971 to 3.1% in 2001. The proportion of females in the total population has consistently been higher than that of males, although it declined from 54.3% in 1971 to 52.2% in 1991, and to 51.9% in 2001. In both urban and rural areas women and girls predominate, accounting for about 50% over the same period.

Botswana experienced high fertility rates during the 1970s and 1980s. However, there is evidence of a decline thereafter, from 6.5 per 1 000 in 1971 to 4.23 per 1 000 in 2001. In the education sector 90% of the school-age population (aged 7–13 years) was in school in 2001. There is almost 100% access from primary to junior secondary education. Between 1981 and 2001 the total literacy rate increased from 34% to 68.9%. Over the same period, the literacy rate for males increased more than that for females.

The government considers population issues and their economic and social ramifications as priority areas for planning and policy-making. For the duration of the National Development Plan 9 (which covers the period 2003–2009), financial allocations have been made towards population and development programmes (GoB 2004). The implementation of these programmes is, however, an ongoing activity carried out across several sectors, such as education, health, housing, agriculture, and so forth. The centrepiece of the government's development efforts, since the inception of the First National Development Plan (1968–1973), remains that of raising the standards of living of the people of Botswana. In line with this, development plans have been guided by the objectives of sustainable development, rapid economic growth, economic independence and social justice.

In striving to achieve these objectives, the government has recognised the fundamental inter-relationship between population and development, especially the close and continuous interaction between population growth, on the one hand, and the growth of the economy, poverty alleviation, human resources development, gender equality and empowerment, environmental conservation and

sustainable development, on the other. As a consequence, institutional arrangements are established to address these issues effectively. A Parliamentary Sub-Committee on Population and Development, and a National Council on Population and Development, together with its Secretariat, are in place.

Consideration of the linkages between population and development is crucial in the formulation of development policies, programmes and projects, especially as people are both agents as well as beneficiaries of development. A population policy, together with an implementation plan of action, has been developed. The population policy was adopted by Parliament in 1998; it has provided a clearly defined framework for the integration of population factors into development planning at all levels and strengthens the direction, cohesion and coordination of the many intervention efforts undertaken by government, non-governmental organisations (NGOs) and the private sector in the area of population and development. The national population policy recognises the fundamental human rights and freedoms of the individual, as enshrined in the Botswana Constitution. In addition, the government is currently in the process of developing a national population information, education and communication strategy to enhance implementation of the policy.

The main challenge is to ensure a balance between economic growth, environmental conservation and the rate of population growth, and to enhance the quality of life of the people through the various social and economic programmes. The young age structure of the population will continue to persist for several years, due mainly to past high fertility levels and the rapidly improving chances of survival, particularly for infants and children. The future outlook for development shows that the high population growth phenomenon and associated high dependency burden will put considerable pressure on households, communities and the government. It will also put considerable pressure on the nation's fragile ecosystem, threaten the government's ability to continue to improve the delivery of services, and compromise its ability to create and sustain employment. Reduction of population growth will enable the government to promote growth, to diversify the economy, and to enhance the nation's physical and human capital with a view to alleviating poverty. Despite all these challenges, the HIV/AIDS epidemic remains the main concern for future productivity, employment and the improvement of the standards of living of people.

### ***Education***

Botswana has made great strides in educational development since independence in 1966. At that time there were very few graduates in the country and only a very small percentage of the population attended secondary school.

With the discovery of diamonds and the increase in government revenue that this brought, there was a huge increase in educational provision in the country. All students were guaranteed ten years of basic education, leading to a Junior Certificate qualification. Approximately half of the school population attends a further two years of secondary schooling leading to the award of the Botswana General Certificate of Education. After leaving school, students can attend one of the six technical colleges in the country, or take vocational training courses in teaching or nursing. The best students enter the University of Botswana in Gaborone, a modern, well-resourced campus with a student population of over fifteen thousand.

Today, Botswana has achieved universal primary education and continues to improve the relevance and quality of basic education. The adult literacy rate increased from 69 per cent in 1993 to 83 per cent in 2007, and the school enrolment rate of girls is now on a par with that of boys.

The quantitative gains have not always been matched by qualitative ones. Primary schools in particular still lack resources. The government of Botswana hopes that by investing a large part of national income in education, the country will become less dependent on diamonds for its economic survival, and less dependent on expatriates for its skilled workers.

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In January 2006 Botswana announced the reintroduction of school fees after two decades of free state education, though the government still provides full scholarships with living expenses to any Botswana citizen in university, either at the University of Botswana or, if the student wishes to pursue an education in any field not offered locally, such as medicine, with a full scholarship to study abroad.

### ***Health***

Access to health services has been enhanced, with population served being within 15 km of a health facility increasing from 80% in 1985 to 85% in 1991 and to 95% in 2001. However, per capita health expenditure has increased significantly during the period, partly due to the sparse population distribution. The goal of providing adequate health care for all is likely to be made more difficult by the prevailing high fertility rate and attendant youthfulness of the population, coupled with the recent surge in the HIV/AIDS epidemic.

The rate of HIV/AIDS infection in Botswana was 20.75% for adults in 2006. People living in towns had a higher prevalence rate (21.3%) than those living in rural areas (20.2%). Although prevalence rates remain high, there are indications that they are on the decline. Prevention of new HIV/AIDS infections remains the cornerstone of the government's strategy to combat HIV/AIDS. Significant progress has been made in terms of enrolling HIV/AIDS patients in anti-retroviral therapy (ART) programmes. As of October 2006, nearly 76 000 patients were enrolled in ART programmes, up from 54 000 in 2005, but still 39% short of the government's target of 85 000 by the end of 2006. The Prevention of Mother to Child Transmission programme also continues to show high uptake, as about 90% of women who are known to be HIV-positive receive treatment at the time of delivery, while 91% of HIV-exposed babies receive infant formula (rather than breastfeeding) and drug therapy.

## **1.4 Economic conditions**

Since independence, Botswana has had the fastest growth in terms of per capita income in the world. Economic growth averaged 9% per year from 1967 to 2006. The government has maintained a sound fiscal policy, despite three consecutive budget deficits in 2002–2004, and a negligible level of foreign debt. Foreign exchange reserves were US\$10.2 billion at the end of November 2007, equivalent to 28 months' cover of 2007 imports of goods and services. Botswana's impressive economic record has been built on the foundation of wisely using revenue generated from diamond mining to fuel economic development through prudent fiscal policies and a cautious foreign policy. However, economic development spending was cut by 10% in 2004/05 as a result of recurring budget deficits and rising expenditure on health care services. Development spending began to increase again in 2006/07 and was budgeted to increase by 27% in the 2007/08 fiscal year. Real GDP remained flat in 2005/06, but the growth rate recovered to 6.2% in 2006/07. As indicated earlier, the government recognises that HIV/AIDS will continue to affect the economy and is providing leadership and programmes to combat the epidemic, including free ARV treatment and a nationwide Prevention of Mother-to-Child Transmission programme.

The performance of the economy has enabled government to increase resources for its development budget. During 1999/2000, the total development budget was P3.450 billion. The bulk of the budget went to social services which include education, health, food and social welfare programmes and housing. The second-largest share went to economic services. This category comprises sectors such as agriculture, forestry and fishing, electricity and water supply, roads and other services. This is aimed at achieving the objective of improving the national road network and access to schools and health facilities so as to improve the standard of living of Botswana.

Over the past 35 years, the economy has experienced one of the most rapid economic growths in the

region. This has been translated into development in the form of infrastructure as well as improvement in the standard of living of Botswana. This resulted in Botswana graduating from the status of a low-income country to that of a middle-income country, with a per capita income of P9 359. Furthermore, Botswana has been awarded the highest sovereign ratings in Africa by both Standard and Poor's (S&P) and Moody's Investors Service rating agencies. S&P assigned Botswana a rating of 'A' for long-term debt and Prime-1 (P1) for short-term debt. These ratings reflect Botswana's long record of political and social stability, rapid economic growth and prudent economic management. In this regard, as an investment destination, Botswana is one of the best-rated countries in the developing world.

In recent years, however, economic growth has slowed considerably due to the erratic performance of the diamond mining sector, which is the main driver of the economy. To date, Botswana has been unable to achieve significant diversification in exports, despite considerable efforts.

Like many countries in southern and eastern Africa, Botswana continues to suffer from high HIV/AIDS infection rates, unemployment (including among university graduates) and poverty. Although the official unemployment rate has fallen from 21.5%, it remains at 17.6%. It is currently estimated that 30% of the population is living on less than US\$1 per day. In a quest to get university graduates employed, the government recently (April 2008) instituted the following measures. Firstly, all graduates who cannot find other work must be given public sector posts; and secondly, an incentive scheme has been introduced that singles out scarce skills in government employment and pays out 30–40% supplementation of salaries to, amongst others, economists, physical planners, engineers, architects and many other professionals with rare skills. This is likely to lead to a higher intake of candidates wanting to pursue planning as a career.

### *Mining*

Debswana (formed by the government and South Africa's De Beers mining group in equal partnership) is the largest mining operation in Botswana. Several other mining operations exist in the country, including the Bamangwato Concessions Ltd. (BCL, also with substantial government equity participation) and Tati Nickel.

Since the early 1980s, the country has been the world's largest producer of gem-quality diamonds. Four large diamond mines have opened since independence. De Beers prospectors discovered diamonds in northern Botswana in the late 1960s. The first mine began production at Orapa in 1972, followed by the opening of the smaller mines Lethlakane and Damtshaa. What has become the single richest diamond mine in the world opened in Jwaneng in 1982. The Orapa 2000 Expansion of the existing Orapa mine was opened in 2000. In December 2004, Debswana negotiated 25-year lease renewals for all four of its mines with the government of Botswana. The Debswana carat output for 2007 was 33.8 million carats, just short of the prior annual record of 34.3 million carats, making Debswana the world's leading diamond producer by value and volume. Exploration for other kimberlite pipes continues. In addition, as part of Botswana's drive to diversify and increase local value added within the mining sector, De Beers opened the Diamond Trading Centre in 2008 to shift sorting, cutting, polishing, aggregating and marketing from London to Gaborone.

BCL, which operates a copper-nickel mine at Selebi-Phikwe, has had a troubled financial history but remains an important employer, although the life of the mine is expected to end in the next 5–10 years. Other copper-nickel mines include Tati Nickel near Francistown. Botash, the sole producer of soda ash in the region and supported by substantial government investment, produced 265 000 tons of soda ash in 2005.

Coal-bed methane gas has been discovered in the north-eastern part of the country, estimated by the developers at a commercially viable quantity of 12 trillion cubic feet. Development of the gas fields has been slow, however.

### *Tourism*

Tourism is an increasingly important industry in Botswana, accounting for approximately 11.2% of GDP in 2006, and hence remains one of the most important avenues for achieving Botswana's elusive diversification goals. One of the world's unique ecosystems, the Okavango Delta, is located in Botswana. The country offers excellent game viewing and birding both in the Delta and in the Chobe Game Reserve – home to one of the largest herds of free-ranging elephants in the world. Botswana's Central Kalahari Game Reserve also offers good game viewing and some of the most remote and unspoiled wilderness in southern Africa.

### *Agriculture*

More than one-half of the population lives in rural areas and is largely dependent on subsistence crop and livestock farming. Agriculture meets only a small portion of food needs and contributes a very small amount to GDP – primarily through beef exports – but it remains a social and cultural touchstone. In 2005/06 its share of GDP was less than 2%. Cattle raising, in particular, dominated Botswana's social and economic life before independence. The national herd is estimated at between two and three million head, but the cattle industry is experiencing a protracted decline.

### *Transportation and communications*

A sparsely populated, semi-arid country, Botswana has nonetheless managed to incorporate much of its interior into the national economy. An 'inner circle' highway connecting all major towns and district capitals is completely paved, and the all-weather Trans-Kalahari Highway connects the country (and, through it, South Africa's commercially dominant Gauteng Province) to Walvis Bay in Namibia. A fibre-optic telecommunications network has been completed in Botswana, connecting all major population centres. In November 2003, representatives of Botswana, Namibia and South Africa signed a memorandum of understanding to simplify documentation to move cargoes to and from the Port of Walvis Bay in Namibia.

### *Private sector development and foreign investment*

Botswana seeks to further diversify its economy away from minerals, which account for over 40% of GDP. Foreign investment and management are welcomed in the country. Botswana abolished foreign exchange controls in 1999, and has a low corporate tax rate (15%) and no prohibitions on foreign ownership of companies. The country's inflation rate had remained stable and comparatively low over the ten years preceding 2005. However, rising fuel and utility prices, along with the government's 12.5% devaluation of the pula in May 2005, resulted in a spike in inflation to 11.4% as of December 2005, which fell well outside the Bank of Botswana's target rate of 4–7%. Inflation as of November 2007 was 7.7%. The government was considering additional policies to enhance competitiveness, including a new Foreign Direct Investment Strategy and National Export Development Strategy. Botswana's Parliament adopted both a Privatisation Master Plan and a new Competition Policy that were aimed at fostering economic diversification.

With its proven record of good economic governance, Botswana was ranked as Africa's least corrupt country by Transparency International in 2007, ahead of many European and Asian countries. The World Economic Forum rates Botswana as one of the two most economically competitive nations in Africa. Because of history and geography, Botswana has long had deep ties to the economy of South Africa. The Southern Africa Customs Union (SACU), comprising Botswana, Namibia, Lesotho, Swaziland and South Africa, dates from 1910, and is the world's oldest customs union. Under this arrangement South Africa has collected levies from customs, sales, and excise duties for all five members, sharing out proceeds based on each country's portion of imports. In July 2008, SACU signed its first Trade, Investment and Development Cooperation Agreement with the USA. SACU also has plans to negotiate free trade agreements with China, India, Kenya and Nigeria.

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Botswana's currency – the pula – is fully convertible and is valued against a basket of currencies heavily weighted toward the South African rand. Profits and direct investment can be repatriated without restriction from Botswana. The Botswana government eliminated all exchange controls in 1999.

Botswana is a member of the 14-nation SADC, and Gaborone hosts the SADC Secretariat's headquarters. SADC embraced the newly democratic South Africa as a member in 1994. It has a broad mandate to encourage growth, development and economic integration in Southern Africa. SADC's Trade Protocol, which was launched on 1 September 2000, called for the elimination of all tariff and non-tariff barriers to trade by 2008 among the 11 signatory countries. The SADC Free Trade Agreement, based on the agreed tariff phase-down, was launched at the August 2008 summit in South Africa. Zimbabwe's membership has limited SADC's opportunities for cooperation with the USA.

### *Structural issues affecting the economy*

- Recent developments

Unemployment has been persistently high and is rising, both for the unskilled and for university graduates. According to the 2005/06 Labour Force Survey, total employment grew at an annual rate of 4.7% between 1995/96 and 2005/06. The annual Formal Sector Employment Survey also showed that formal sector employment grew by 2.2% in 2007, up from 1.8% over the 2002–2006 period. The government is the largest employer of labour, accounting for 40% of employment. The informal sector is also important in Botswana, having contributed about 33% of GDP in 2002. In terms of employment, it is estimated that about 60 000 enterprises in Botswana operate mostly in the informal sector, employing one or two people. More than 80 000 people (about 5% of the population) are employed or work in the informal sector (AfDB/OECD 2008: 158).

Government strategy for employment creation is part of a larger National Poverty Reduction Strategy which emphasises, among other things, economic diversification, export growth and private sector development. In terms of implementation, the government has established the Multi-Sectoral Sub-Committee on Poverty Reduction to coordinate implementation of the poverty reduction strategy and to carry out the relevant monitoring and evaluation of poverty alleviation programmes, including social safety nets and social security systems.

In order to ensure that citizens share the fruits of economic growth, the government provides a number of social safety nets, which include the destitutes' allowance, orphan care programme and old age pension scheme.

One of the goals of the government's Vision 2016 is to eradicate absolute poverty by 2016. To this end, implementation of the 2003 Poverty Reduction Strategy is continuing in earnest, with a review of the selected programmes to establish their consistency with the overall poverty reduction strategy (GoB 2006).

- Capacity problems

Scarcity of qualified staff has been a constraint on local authorities. The Local Government Service Management helps the local authorities in meeting their personnel requirements. The recruitment, training, posting, promotion, discipline and conditions of service of personnel are handled by this agency, but technical cadres like planners are in short supply.

- Technical and vocational skills development

Botswana has introduced a Structure Work-Based Learning (SWBL) approach to skills acquisition. The SWBL approach represents a new concept of skills, knowledge and attitude acquisition for the country. This system has been benchmarked against the best in the world and includes quality assurance as a cornerstone. SWBL is vocational training that is based on requirements in the



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workplace and uses the workplace as a learning context. In this approach, industry determines what learners and prospective employees need to know in order to be suitable for the working world. This involves various pathways employing mixes of on-the-job and off-job learning assessment.

## 1.5 Development planning in Botswana

Botswana's development process has been guided by the six-year National Development Plans (NDPs), which set the government's development strategy. The current plan is NDP9, covering the period 2003–2009; preparations are already under way for NDP10, which will cover the period 2009–2014.

### *Botswana's long-term development goal – Vision 2016*

Botswana's long-term development is driven by Vision 2016, exactly 50 years after independence. This is the strategy to propel its socio-economic and political development into a competitive, winning and prosperous nation. Seven key goals have been developed to achieve this. The vision reflects the aspirations of Botswana about their long-term future and is a result of extensive consultations with a wide spectrum of individuals and institutions in the country.

The long-term vision has the following seven strategic pillars or goals (GoB 2006):

- ♦ An Educated and Informed Nation  
By 2016, Botswana's education system will have readied itself for the dynamic needs of the country and the world. After acquiring a good education and training, citizens will be expected to be better producers of goods and services. A huge pool of skills for most sectors of the economy is expected by this time. Botswana will be abreast of other nations in information technology and will have become a regional powerhouse in the field. This will enable Botswana to become an informed nation in which a culture of transparency and accountability will flourish. This has been key in the planning education that is offered at the university.
- ♦ A Prosperous, Productive and Innovative Nation  
Botswana will be a hard working and disciplined people with a diversified economy. Agriculture, industry, mining and services will be productive and vital components of economic activity work will be recognised and rewarded. Government, in partnership with the private sector, will nurture the spirit of entrepreneurship and creativity in the field of science and technology. Economic empowerment of the citizens will be one tool of achieving this strategy. Botswana's development will be sustainable, and will take account of the preservation of the environment and renewable resources.
- ♦ A Compassionate, Just and Caring Nation  
By the year 2016, Botswana will be a *compassionate and caring nation*. Income will be distributed equitably. Poverty will have been eradicated, and there will be an efficient social safety net for those who suffer misfortune. All Botswana will have access to good quality health services, sanitation and nutrition. The negative impact of the AIDS epidemic in Botswana will have been halted and reversed.
- ♦ A Safe And Secure Nation  
By the year 2016, Botswana will be a *safe and secure nation*. Violent crime will have been eliminated, and there will be full protection of individual rights.
- ♦ An Open, Democratic and Accountable Nation

By the year 2016, Botswana will be an *open, democratic and accountable nation*. There will be a system of decentralised democracy and political tolerance. Civil society will play a full part in the development of the country, alongside government. The nation's leaders will be open and accountable to the people. The role of traditional leaders will have been enhanced. Freedom of expression as well as press freedom will be fully protected.

- ♦ A Moral and Tolerant Nation

By the year 2016, Botswana will be a *moral and tolerant nation*. There will be high standards of personal morality, and tolerant social attitudes towards people of different cultures, ethnic traditions, religions or disabilities.

- ♦ A United and Proud Nation

By the year 2016, Botswana will be a *united and proud nation, sharing common ideals, goals and symbols*. Society will be underpinned by resilient family values with a strong sense of tradition and pride in its history.

### ***Public sector reforms***

In order for the government to achieve its stated goals and objectives for the various sectors, it has had to make several public sector reforms to change the way government does business and also to increase productivity.

Public sector reforms in Botswana have gained increased attention over the last two decades, with several policies and strategies devised to implement them. The reforms are manifested through various micro-level initiatives undertaken by government, including decentralisation, creation of institutions such as the Ombudsman, the Directorate on Corruption and Economic Crime and the Public Enterprises Evaluation and Privatisation Agency. At the micro-level there have been other initiatives such as the Organisation and Methods reviews, Job Evaluation, Work Improvement Teams and the newly introduced Performance Management Systems (PMSs).

The reforms appear to have been influenced by the realisation that, in spite of the country's relative success in economic terms, its public sector performs poorly. Official statements, including the NDPs, annual budget speeches (GoB 2004) and the Vision 2016 document (GoB 2006), identify low public sector productivity and weak implementation capacity as the major factors that constrain the realisation of public policies that are otherwise clear and comprehensive. It is imperative, therefore, to see how spatial planning can attempt to contribute to better realisation of these reforms.

Public sector reforms in Botswana are broadly perceived to mean structural and procedural changes aimed at obtaining a more efficient and effective public service (GoB 2004). Amongst the above listed components of these reforms, Botswana has given more prominence to public administration, decentralisation and privatisation. The reforms have included streamlining (right-sizing) of the public sector, productivity improvement programmes, control over inputs, transparency and accountability, PMSs, commercialisation, corporatisation and the anticipated privatisation. However, more needs to be done to realise better results.

### ***The development planning process and the involvement of civil society***

A fundamental premise of planning in Botswana is that it should, as far as possible, be based on a 'bottom-up' system whereby the people have the opportunity to express their needs, and these needs, in turn, should form the basis of community, district and, eventually, national planning. In terms of this rationale, Village Community Plans precede District Development Plans and subsequently National Development Plans (NDPs), so that the information emerging from village consultations is incorporated into the NDP. Community and district development planning is seen in Botswana as an

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integral part of the national planning process, and it details implementation of the same. This ensures that development needs identified in the districts provides pertinent information for the sectoral ministries, and feed indirectly into the NDP.

Similarly, the preparation process of urban structure plans is subjected to public consultation and participation at all stages as stipulated in the Town and Country Planning Act (see section 3 below).

In essence then, citizens participate in all aspects of development, from decision-making, planning and implementation to monitoring and evaluation. Similarly NGOs, community-based organisations (CBOs), and church organisations also actively participate in public consultations in development projects. This promotes good governance, accountability and transparency in the management of public institutions.

## 1.6 Emerging national challenges warranting planning intervention

From the above background information on Botswana, certain key issues or challenges relating to development have emerged that warrant planning intervention. These are:

- The fast-growing **population** characterised by high fertility rates and a young population, which has implications for provision of services and education to meet demand. Further, this rising population puts pressure on the country's fragile ecosystem, threatens the government's ability to continue to improve the delivery of services and compromises its ability to create and sustain employment.
- The slow-down of the **economy**, due to a decline in incomes from minerals and lack of economic diversification, has led to unemployment and an upsurge of the informal sector with its attendant spatial needs.
- **Rising urbanisation** has meant that most towns in Botswana are doubling in population every ten years, leading to sprawl; major villages are quickly attaining urban status; the proliferation of new settlements in rural areas is a common occurrence; and the practice of squatting is slowly creeping in. Planning is needed to guide the growth of these settlements.
- **Environmental problems** caused by rapid urbanisation and unsustainable use of resources will need to be addressed swiftly, before the situation gets worse.
- There is an urgent demand for **infrastructure development** in all urban and rural areas following government policy to improve the lives of Botswana. This means that areas have to be planned, surveyed and serviced before development can take place.
- The scourge of social ills like the **HIV/AIDS pandemic and poverty** demands a holistic approach from all stakeholders. HIV/AIDS awareness-raising in education curricula can play a role in limiting the spread of the disease.
- Efforts being made by government to increase access to **tertiary education** and reward certain skills like architecture, engineering and planning have raised enrolments for such professional courses.
- **Lack of capacity** to implement development plans and urban structure plans, due mainly to lack of professional staff such as planners, calls for a solution from the training institutions to meet demand.
- **Public consultation and participation** is not always adequate. Although provisions are provided for citizens and civic organisations to participate in planning at various stages of the planning process, such groups are not always involved or, if they are, their inputs are not factored into the ensuing products.

## 2. The experience of spatial planning in Botswana with particular reference to the city of Gaborone

### 2.1 The urban and regional context

#### *Urbanisation patterns and processes in Botswana*

In Botswana, an urban settlement is defined by a minimum population threshold of 5 000 residents, with at least 75% of the economically active population engaged in non-agricultural activities. Unlike most sub-Saharan African countries, over half of Botswana's population currently lives in urban settlements. Between 1964 and 1971 Gaborone recorded an annual population growth rate of almost 24% whilst its surrounding villages, such as Gabane and Mogoditshane, experienced losses of -0.1% and -0.9%, respectively. The urbanisation level nearly doubled from less than 10% in 1971 to 18% in 1981. Between 1981 and 1991, the percentage of the urban population more than doubled, from 18% in the base period to 45% by the end of the review period. Table 1 depicts the national urbanisation levels from 1991 to 2001. The urbanisation trends have been closely associated with the nation's economic development and modernisation but, lately, also with urbanisation diseconomies.

**Table 1: Population growth trends in Botswana, 1991–2001**

Settlement	Population in 1991	Annual % growth	Population in 2001	Annual % growth
Gaborone	133 468	8.4	186 007	3.37
Mogoditshane	14 246	16.4	32 843	8.71
Tlokweng	12 501	6.5	21 133	1.02
Gabane	5 975	8.3	10 339	2.98
Metsemotlhaba	1 586	14.9	4 056	3.25
Mmopane	1 249	7.9	3 512	10.89

Source: Gaborone City Council 2003

Although the broad upward urbanisation trend has persisted since 1991, the 1991–2001 rate has receded. To date, just over 54% of the national population has been urbanised. The exponential annual rate of increase of the urbanised national population rose from 11.3% between 1971 and 1981 to peak at 12.8%, during the 1981–1991 intercensal period, before reaching an all-time low of 4.2% between 1991 and 2001. This is because there have been fewer and fewer lower-order settlements eligible for urban re-designation, and the urbanisation process has become increasingly migration-driven only.

The urbanisation process at the macro-level can be attributed to three factors. First, the number of places designated urban has been increasing. In 1971, there were only the two towns of Lobatse and Francistown, the recently established capital city of Gaborone, and two new mining towns. This set of urban settlements was statutorily expanded in 1981 to include the traditional *agro-towns* of Palapye and Tlokweng. In 1991 an additional reclassification took place of a very large number of traditional villages as well as the opening up of Sowa Mine. Since 1991, several additional villages have been declared Planning Areas and have thus acquired urban status. The relative share of urban villages in relation to the total urban population increased from 9.8% in 1981 to 56.9% in 2001. Unlike in the developed and most developing countries, where urbanisation is attributed mainly to rural-urban migration, the Botswana situation thus presents a different scenario. Forty-five per cent of migration has been rural-to-town. Even the 40.2% listed as rural-rural migration was probably migration to the officially designated agro-towns.

Designation of such villages as district and sub-district headquarters has elevated their functional status, because re-designation is accompanied by decentralisation of human resources and services and the improvement of physical infrastructure, utilities and telecommunications. Such public investment has attracted private sector investment and employment generation. The national population relocates to private- and public sector investment sites and their associated economic and socio-economic opportunities. Some of the major causes of rural-urban population relocation therefore include:

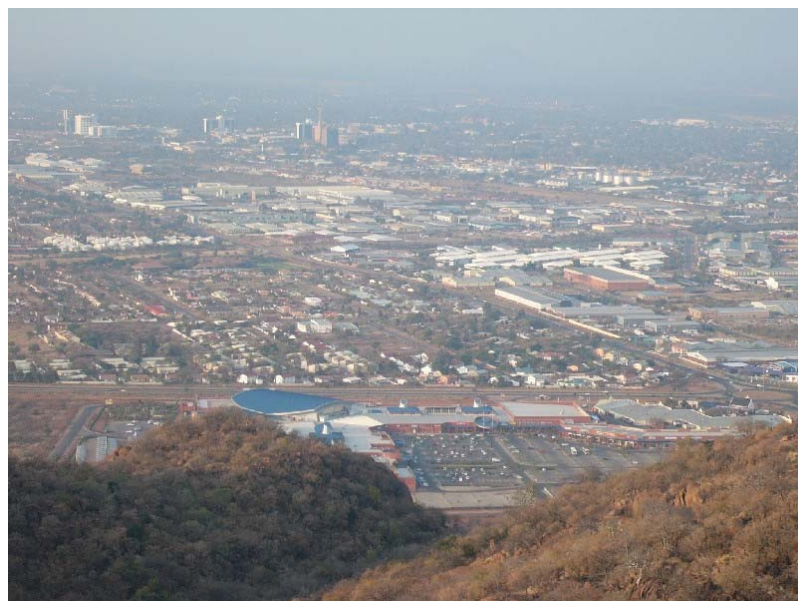
- urban-biased policies in public- and private sector investment;
- wage disparities between the urban-industrial and the rural sectors;
- an educational curriculum which is biased towards blue and white collar employment, found mostly in the urban sector;
- low agricultural commodity prices which make agriculture an unattractive occupation, even in good rain seasons;
- weak agricultural marketing systems and policies;
- land-use conversions from subsistence to commercial tenure, leading to either the absorption or displacement of certain rural communities;
- rapid rural population growth, leading to population pressure, which manifests itself as unemployment, over-exploitation and degradation of the environmental resource base;
- periodic droughts and desertification which have forced the rural population to relocate to the larger centres, to access a reliable water supply, drought relief rations and work. With the looming global climate changes, droughts could become chronic and increase environmental refugees;
- termination of the formal international migratory labour system by South Africa to make employment available to its own citizens;
- finally, the strategic location of certain settlements with regard to major industrial, commercial and administrative centres, which has provided a strong basis for their growth. Another locational factor has been arterial access to local, regional and international markets and services.

The above co-factors therefore jointly explain the growth variations among modern towns, regional and sub-regional centres.

## **2.2 Population growth trend of recognised settlements within the Greater Gaborone planning area (1991–2001)**

Gaborone is a metropolitan city that is a melting pot of people: locals of various tribes and foreigners (from Africa, Asia and America/Europe) living in juxtaposition (Figure 1). It has experienced the most rapid population growth in the country, as the pull factors in the migration mix are concentrated there. Since it is the national administrative headquarters, the frequency and variety of socio-economic investments in Gaborone far outweigh those of other urban centres, hence attracting migrant populations of every social category. Centralised investment in the city, and the considerable improvement in social and infrastructural services in the areas of education, health and housing, have been attributed to the growth of Gaborone (Gaborone City Council 2003).

**Figure 1: A bird's eye view of the city of Gaborone**



Source: Photographed by the author.

### ***Land tenure***

There are three types of land tenure system prevalent in Botswana, namely the communal, state and freehold land tenure systems. However, there are essentially two basic forms of land tenure in Gaborone. These are state and freehold tenures. State land constitutes 75.7% of the city land area whilst freehold land covers the remaining 24.3% (Gaborone City Council 2003).

Government allocates state land in terms of a Fixed Period State Grant (FPSG) and Certificate of Rights (COR). The FPSG is granted on a lease basis, with a period of grant which varies according to the land use: commercial and industrial rights for 50 years and residential rights for 99 years. The Department of Lands is the responsible authority for the allocation of state land on behalf of the Minister of Lands and Housing (Gaborone City Council 2003).

The COR was introduced in the early 1970s as a means of providing low-income plot holders with secure tenure (through a Self Help Housing Agency). In 1992 this was replaced with the FPSG (Gaborone City Council 2003).

Freehold land tenure systems entitle the owner to perpetual and exclusive rights. This form of tenure is transferable in perpetuity and can be leased for fixed periods. Since freehold land can be subdivided into portions and leased for a long term, and is subject to registration with the Registrar of Deeds, the result has been a prevalence of small landholdings and owners. This situation makes rational planning of the area an overwhelming task. Moreover, there are conflicting interests of landowners in terms of the envisaged land use and when and how they intend to develop the plots (Gaborone City Council 2003).

### ***Urban expansion and its impact***

The geographical location of Gaborone poses a problem for its future expansion in all directions. It is bordered to the east by the Notwane River, which forms a natural barrier between the city and Tlokweng; to the west by Mogoditshane; and to the south by a number of freehold farms and tribal territory under the jurisdiction of the South East District Council and Maletle Land Board respectively.

There is hardly any spatial separation between the settlements of Gaborone, Mogoditshane and Tlokweng, except for the statutory boundaries. This has resulted in a combination of urban, semi-urban and rural environments. Moreover, Gaborone has placed a great deal of pressure on its surrounding settlements. To a large extent these settlements have become dormitories for workers in Gaborone.

### *The impact of rising urbanisation on land prices and speculation*

In Botswana, rapid growth in and around the Gaborone capital territory has engaged with a consequence of the colonial dual land tenure system: high prices and slow delivery of public sector serviced land within the municipal area, combined with the availability of cheap peri-urban land nearby, weakly managed by the tribal land boards. People to whom land has been allocated are selling it for higher prices on account of its location nearer to the city. The land boards are looking into this problem (Mosha 2006a). The government has applied tough anti-squatting measures (a zero tolerance policy), but with limited success, and the transmutation of tribal tenure practices has made the peri-urban areas of Mogoditshane and Tlokweng into places where city-dwellers are flocking in to buy land.

### *Property markets*

The residential property market in the city has picked up in the past year, after a previous weak patch, as investors have been wooed to invest in the city (Figure 2). Strong growth in the mining sector has brought foreigners into Botswana to engage in all sorts of mining activities and many international companies have flocked into the city. 'A year ago, this was a buyer's market, and there was a lot of stock available. There has been a complete U-turn and now it is a seller's market,' says Adrian Reff of Seeff Properties, Gaborone (Global Property Guide 2008). The take-off has been strongest in the commercial and industrial sector, but the residential market has followed the same route. Rents are rising. Property prices have picked up significantly, particularly for higher-end properties. Sellers are achieving above list price, in striking contrast to the situation a year ago.

**Figure 2: Botswana's housing market strengthens**

Source: Department of Architecture and Planning 2007

Building costs are currently between P3 000 and P5 000 per square metre, depending on finishes. However, the average building cost for common properties is around P1 500 and P3 500 in most suburbs in the city and peri-urban areas.

The Botswana government actively seeks out foreign investment and is happy to sell land to foreigners. Only tribal land and state land cannot be sold to foreigners, and in most areas of Gaborone (and indeed Botswana) land can be bought.

**Table 2: Price yields in Botswana's major urban centres\***

Gaborone & Francistown	Cost (US\$)		Yield (% p.a.)	Price/m <sup>2</sup> (US\$)	
	To buy	Monthly rent		To buy	Monthly rent
75 m <sup>2</sup>	70 000	550	9.43	933	7.30
100 m <sup>2</sup>	110 000	680	7.42	1 100	6.80
150 m <sup>2</sup>	150 000	950	7.60	1 000	6.30
200 m <sup>2</sup>	180 000	1 100	7.33	900	5.50
250 m <sup>2</sup>	230 000	1 400	7.30	920	5.60
300 m <sup>2</sup>	270 000	1 700	7.56	900	5.70
350 m <sup>2</sup>	310 000	2 000	7.74	886	5.70
600 m <sup>2</sup>	550 000	3 000	6.55	917	5.00

Source: Global Property Guide 2008

Note: \* Last updated 8 December 2005.

According to Global Property Guide research, yields of 6.5–9.5% can be enjoyed on residential property in Gaborone and Francistown. A 200 m<sup>2</sup> property would cost about P1.1million (US\$180 000), and rent for about P6 675 (US\$1 100) per month; a yield of 7.3%. Current rates are much higher in that the same property could cost P2.5 million.

However, Knight Frank Botswana reports considerably higher yields, of around 11–12% for a 3–4 bedroom executive house in Gaborone, and 12–18% for a 4-bedroom house in Francistown (Global Property Guide 2008).

### *The design of land uses in the city: the mixed-development concept*

One of the main pillars of urban planning in Botswana is the policy of social mix, which is embedded in the history of settlement development in Gaborone (Moshia 2006b) .



Due to its designation as the administrative centre of Botswana, only residential zones for government staff were planned in Gaborone in the decade 1965–1975. The in-migrating rural population was ignored for a long time. This led to unplanned squatter settlements (for example, Old Naledi) and also to a segregation of social classes and income groups in Gaborone's residential areas.

With time this practice was found wanting by the then-president Sir Seretse Khama, who eventually directed that all future urban areas should be planned in a non-segregated manner. As a result, social mix between high-income and low-income families became one of the most important strategies for urban planning in residential areas, and has been adopted in the whole country until today. A culture of 'neighbourhoodness' is, however, most prominent in the low- and medium-income housing areas, whereas in the high-income areas it is not uncommon to find people living inside electric-fenced walls for security reasons.

## 2.3 Housing

### *Public housing*

The Ministry of Lands and Housing is responsible for the management of land and related functions as well as for the facilitation of housing delivery, which is guided by the National Housing Policy of December 1999 that replaced the policy of 1981. Its major objective is to ensure safe and sanitary housing for every Motswana. In this policy, the government has realised that it cannot continue to be the sole provider of housing as it was in the past, and therefore has recognised the importance of actively forging partnerships with other stakeholders. Government now emphasises the importance of facilitation as its major role, while other stakeholders, including the private sector, become involved in the servicing and development of land.

Another new aspect of the policy is the promotion of housing as an instrument for economic empowerment of the poor citizens. The very poor families who do not qualify for existing government assistance programmes will now benefit from the Poverty Alleviation and Housing Programme, whose objective is to provide them with basic skills to build their own houses, equip them with business management skills, create employment and generate income to improve living standards.

The housing sector in Botswana has high priority, in line with the belief that adequate shelter is a basic human need. The development and delivery of housing in Gaborone are a combined effort of both the public and the private sectors. The Botswana Housing Corporation (BHC), as mandated by the Ministry of Lands and Housing, is the major developer of public sector housing and provides housing for both public and private tenants. The BHC has managed to complete 635 houses as part of its target of 3 400 housing units during the National Development Plan 9 (GoB 2004), which runs until 2009. In line with the government objective of promoting home ownership, the BHC has, over the last three years, enabled 1 945 Batswana to own homes by buying houses from the corporation. The corporation sells houses only to Batswana and to citizen-owned companies. It has a rental stock of 10 000 housing units of various prices.<sup>1</sup>

### *Low-income housing – A Self Help Housing Scheme for the nation*

Another major component of the housing delivery system is the site-and-service scheme which is administered by the Self Help Housing Agency (SHHA) of Gaborone City Council to cater for the needs of the low-income population. This is the most successful urban low-income housing

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<sup>1</sup> <http://allafrica.com/stories/200709040014.html>.

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programme instituted in Botswana, and has effectively provided shelter for about 60% of the urban population. By 1992, there were about 27 000 SHHA plots in the urban centres, with about P7 million disbursed in building material loans.

The programme currently provides 60% of the city's housing stock. The SHHA programme was introduced countrywide in 1973, and its objective was to assist low-income urban households to develop their own houses. Under this scheme, government provided basic services such as engineered earth roads, communal water stand pipes and pit latrines to the housing sites. Applicants whose incomes ranged between P800 (US\$267) and P7 000 (US\$2333) per annum were provided with free serviced plots on a first-come, first-served basis. A certificate of rights provided tenure security to the beneficiary to permit use of the plot. There was a development covenant which, among other things, required the beneficiary to develop at least a core house on the plot within two years. An accompanying P1 200 (US\$400) loan for building materials was provided upon request, repayable over a period of 15 years.

Today, the fully serviced plots belong to the state, which charges rents on them, but rights to the houses are in the possession of the plot titleholder for a period of 99 years. Land tenure security is one of the pillars of social sustainability. In this sense, the possibility of inheriting plots provides social justice and security. In order to prevent speculation on the plots, the plot holder is not allowed to sell his house before a period of ten years has elapsed; if he does so he will be charged the full market price. The application of the principle of full cost recovery on the SHHA programme aims at social equity. Charging the medium- and high-income plot holders plot prices, property rates, service levies and rents allows for a cross-subsidy to low-income groups. Thus, the medium- and high-income residents pay for full cost recovery of the land values, physical services and social structure

Since 1992, the service standards of the SHHA areas have been improved to include individual water connections, waterborne sewage systems and electricity supply to the periphery of the plot. The qualifying income range has also been increased to between P1 800 (US\$600) and P10 000 (US\$333.33), while the COR is being replaced with the FPSG. Both the development period and the building materials loans have similarly been increased, to cover 4 years and P3 600 (US\$1 200) respectively. In July 2008 the government increased the SHHA loan ceiling from P20 000 to P45 000 and the repayment period from 10 to 20 years. The maximum annual income of an applicant has also been increased to P36 400 in order to cover more people.<sup>2</sup>

Following the above success, government decided that a modified version of the programme be introduced in the rural areas and its uptake is quite encouraging.

### ***Private housing***

Private houses are built by estate developers and private citizens, notable among which are Phakalane Estates, which has provided 4 000 residential plots, TIME Projects, Universal Builders, Grand Millennium Estates and Sheldon Properties. Private developers sell plots and houses on a 60 : 40 basis in favour of citizens in any scheme. Government also provides land to the private sector to be serviced and allocated or developed. All this goes to show that public-private partnerships in housing provision are the way to go in the future.

Other policies that have helped in the provision of housing in the city, and the country as a whole, include the following:

- provision of housing finance to the low- and middle-lower-income population through the SHHA programme;

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<sup>2</sup> *Daily News*, 28 July 2008

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- promulgation of the Sectional Titles Act (2000), which will facilitate the sale of apartment buildings to occupants and those interested;
  - the Government Employees Motor Vehicle Advance (GEMVA) Scheme, a facility by which government guarantees 80% of loans issued by banks to public officers;
  - Housing Finance: Guarantee of Botswana Building Society loans. The Botswana government recognised the important role of finance in housing development in the national policy on housing, and recommended the involvement of the National Development Bank, building societies and commercial banks in lending to all income categories. In order to enhance the effective involvement of these institutions, government provides mortgage loan guarantees of 25% to eligible citizen borrowers. The Botswana Building Society is the major mortgage lender. Buoyed by the property boom in Botswana that has defied the sub-prime crisis in the USA, the Botswana Building Society's mortgage advances increased by 14 per cent to hit the P1 billion mark by August 2008, boosting its profit to rise by 20 per cent to P69 million, compared to P58 million made in the previous year. The Society's mortgage advances in 2008 stand at P1.031 billion, while its total assets stand at P1.5 billion.<sup>3</sup> Botswana's commercial banks also constitute a major source of mortgage lending, contributing almost 34% of total loans.

Despite these efforts, major challenges still persist:

1. shortage of land to meet the demand for serviced plots;
2. high prices for properties in the private sector;
3. the payment of VAT on houses, which is considered to discourage potential buyers;
4. the high cost of building materials, most of which are imported, which militates against home ownership;
5. the tendency of some citizens to sell plots to ineligible individuals on a speculative basis.

## 2.4 The informal sector

Informal-sector trading activities are a huge concern in Gaborone because of the unregulated and uncontrolled manner in which they operate. Most of these activities take place in residential areas, malls, bus station and industrial areas. In Gaborone there are about 2 880 traders in total. Despite pronouncements that actors in the informal sector are *bona fide* stakeholders in the development process, the extent to which they are treated as such remains unclear. It does appear that in practice the government in Botswana is less tolerant of the informal sector than is required. This is evident from the skirmishes that take place between informal-sector traders and government officials.

## 2.5 Levels of unemployment in Gaborone

As in most cities in the region, employment in Gaborone is mostly in the public sector, more so given that Gaborone is the seat of government and of most parastatals. Other employment opportunities are in light manufacturing and the service industry. As expected, the city's residents have not escaped the plight of unemployment, especially the youth and women. In 2001, of the unemployed people in the city 39.1% were male as against 60.9% female. Rural-urban migration is said to be responsible for the high unemployment figures, as people flock to the city in search of job opportunities.

The figures in Table 3 give a breakdown of unemployment amongst different subsets of the population in Gaborone. Government has in place a social security system and has also introduced

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<sup>3</sup> Mmegi, 5 August 2008

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many measures to help stem the tide of unemployment through skills training, and more recently has instructed all public institutions to employ/absorb all those leaving tertiary education.

**Table 3: Levels of unemployment in Gaborone, 2001**

Unemployed group	Male	Female	Total
Housework	3 015	12 338	15 353
Student	14 720	16 090	16 671
Retired or other	495	502	997
Actively seeking work	5 807	7 772	13 579
Total unemployed	23 587	36 702	60 289
Proportion (%)	39.1	60.9	100.0

Source: Gaborone City Council 2003

## 2.6 Environmental issues in Gaborone

By many standards the city's environment is quite good, due mainly to proper spatial planning and adherence to strict development control. However, with rapid urbanisation the environment has been adversely affected. The city's environment has become increasingly affected by indiscriminate littering of waste, cutting of vegetation and lack of care of open spaces. Though the council is trying its best to clean up the environment, a lot more still needs to be done.

The ecosystem has become seriously impaired through the dumping of solid and liquid waste into river courses and the extraction of sand for the booming construction industry. Littering of construction rubble has become a serious urban problem that threatens environmental aesthetics, and encroaches on valuable open spaces and potential construction sites. Un-rehabilitated borrow pits in the peri-urban area pose physical hazards. Household, industrial and medical waste poses serious environmental threats. Although the Waste Management Act has been promulgated, there are technical, financial and human resource constraints on its enforcement (Gwebu 2004). Compacted and impervious urban surfaces, coupled with poor stormwater drainage, induce flooding and reservoir siltation even when slight showers fall, creating threats from waterborne diseases. Peri-urban deforestation for fuel-wood energy sources by poor households threatens the biodiversity of these peri-urban areas.

Enforcement of the Town and Country Planning Act, development of affordable, environmentally friendly energy alternatives, and public awareness sensitisation are required to mitigate these impacts on the urban environment.

## 2.7 Challenges of urban growth

The unforeseen growth of Gaborone produces severe stress on urban resources and has led to environmental problems in the capital and in its surrounding settlements. The most obvious problems are:

- loss of agricultural land for residential purposes – many of the farms surrounding Gaborone have been turned into residential neighbourhoods or commercial and industrial centres;
- falling of water tables and drying up of boreholes – the yield of Gaborone Dam has fallen significantly due to developments taking place in its catchment areas;
- deforestation because of fuel-wood needs (mostly among low-income households), that leads to severe vegetation depletion and gully erosion;
- pollution of groundwater by nitrates and bacteria from pit latrines;
- contamination of rivers and streams by sewage outflows and waste disposal;
- air pollution because of increasing traffic, firewood and litter burning;

- uncontrolled littering and solid waste deposition in open spaces, streets etc.

### **3. The urban planning system in Botswana**

In this section we cover the main elements of physical planning in Botswana; the professional planning practices in place; and also the pivotal role that the planner plays in the development of settlements. The analysis will show that professional planning practices are struggling to keep pace with the challenges faced by the cities and rural areas of Botswana.

#### **3.1 The administrative framework of planning**

In Botswana, planning is practised at two levels, central government and local government level.

It is the Minister of Lands and Housing who is charged with overall responsibility for planning and administration of land. The Minister is assisted by the Town and Country Planning Board (TCPB) and the Department of Town and Regional Planning (DTRP). This department provides professional and technical advice and is also responsible for formulating national policies pertaining to physical planning.

At the regional and local levels the district and urban councils deal with physical planning and development through their planning committees and the physical planning units. Other local authorities such as the land board and the tribal and district administration play important roles in planning and implementation.

Organisational structures are constantly reviewed in order for them to be as efficient as possible. Decisions concerning physical planning issues are brought as close as possible to the people affected, and the organisational and administrative set-up related to planning is streamlined.

In the case of Gaborone, spatial planning is done by the Town Planning Department and assisted by the Physical Planning Committee which scrutinises and approves planning schemes or refers them to the TCPB for approval. As most of the time the few planners in the council are overwhelmed with work, most plans get prepared by consultants or by the DTRP, leaving the planners mainly with development control functions. This does not augur well for the spirit of decentralisation, and recently more planners have been appointed to the council to help with the ever mounting planning work (Chephete 2006).

#### ***Planning legislation***

Planning legislation in Botswana dates back to 1961, with the introduction of the Town and Country Planning Proclamation Order of 1961 which was in force prior to independence. It made provision for simplified town planning schemes. After independence in 1966, it became apparent that the Town and Country Planning Proclamation Order was outdated and inadequate to deal efficiently with land use issues, and needed to be repealed.

The Town and Country Planning Act of 1977 was introduced to replace the Town and Country Planning Proclamation Order. It is the most important law within the physical planning sector. It was enacted to assist the orderly and progressive development of land in both urban and rural areas and to preserve and improve amenities by means of planning permission. The Act is presently being reviewed, as new developments and policies have to be taken on board.

There are a number of other laws and regulations that govern the physical planning services provided to the public.

The Building Control Act and Regulations, Cap. 65:02 ensures uniformity in the law relating to the

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erection of buildings in designated areas and for prescribing building standards. It covers procedures related to building permission, use of building material, preparation of site, protection from moisture, structural fire precautions, standards of accommodation, soil and waste drainage, sanitary appliances, electrical installations etc. It also deals with issues concerning dangerous buildings, structural stability of walls, procedures for erection of a building, change of use and demolition.

Other Acts and Regulations governing aspects of physical planning include the following:

- The Factories Act Cap. 44:01 Section 5: this deals mostly with the definition of a factory. It provides a useful guide for land use classification
- The Trade and Liquor Act: this deals with the zoning requirements for the location of businesses to be licensed. It also classifies trade licences which a planner has to guide in their location; for example, a hair salon in a residential area needs special planning permission.
- The Monuments and Relics Act Cap. 59:03: this ensures that ancient monuments, ancient workings, relics and other objects of aesthetic, archaeological, historical or scientific value or interest are preserved and protected.
- The Protected Places and Areas Act Cap. 22:01: this provides for the declaration of protected places and protected areas .
- The Urban Development Standards Act of 1992: this applies only to officially declared planning areas and covers the following elements:
  - ♦ urban planning standards which include plot orientation, sizes for various types of plots, open spaces, facilities in commercial centres, road reserves and carriageways, pedestrian and cycle routes, drainage, sanitation and water supply, power supply etc.;
  - ♦ housing categories and their affordability;
  - ♦ engineering standards, with technically detailed standards for roads, sewerage and sanitation, water supply, storm water drainage, electricity power supply, telecommunications, railway design.
- The Development Control Code (DCC) 1991: this is part of the legislation that deals with development control. The majority of the regulations in the code also set standards. It is primarily designed to guide and enable control of physical development towards creation of a high-quality environment for all users. The code is designed in such a way that it is applicable to both urban and rural development, and is of use outside planning areas.

The DCC is divided into six main chapters:

- a. residential land use (subdivided into sections for single family and multi-family housing);
- b. commercial land use (with a special subheading for petrol stations);
- c. industrial land use;
- d. civic and community land use;
- e. mixed land use;
- f. signs.

As with the TCPA, the DCC has recently been reviewed to take on board new developments in spatial planning.

### *The types of plans produced*

Basically two types of plans have been produced for Gaborone: economic and spatial plans.

- **Economic plans**

The Gaborone Urban Development Plan (UDP) 1(1998–2001) and UDP 2 (2003–2009) are six-year economic plans prepared by the Gaborone City Council following the six-year NDPs. Such plans are economic in nature and aim at providing a coordinating role for the programmes of private, state and parastatal organisations. The plans attempt to express policies and objectives that guide and shape the future growth of the city during the NDP periods. They also provide a basis for the realisation of Vision 2016, Botswana's blueprint that seeks to propel the country's economic and political development towards that of a competitive and prosperous nation. Implementation has been modest due to capacity constraints.

- **Spatial plans**

Hand-in-hand with the economic plan, the city also prepares spatial plans spanning a period of 24 years. Basically these are land use plans implemented through strict zoning ordinances. Plans are afoot to venture into strategic spatial planning and integrated development planning. Currently, the city is being guided by the Gaborone Development Plan 1997–2021 (GoB 2007) that is currently under mid-term review. The aim of the development plan is to provide a single comprehensive statutory document that guides and shapes the future growth of the city in an integrated and coordinated manner for a 24-year period. Most spatial development in the city religiously follows the provisions of the plan. However, as in the case of its economic counterpart, implementation has been slow due to capacity problems and lack of investors in the city.

A third planning tool is the Greater Gaborone Structure Plan 1994–2014. The principle aim of this plan is to provide a planning document which states in clear terms the objectives and policies that govern the future growth and development within the planning area, which covers many villages in the peri-urban area. The document provides policy proposals that tackle major issues of population distribution and growth, employment, social and community needs etc. for a period of 20 years. Unlike the other two, this plan does not seem to have achieved much, as strategies for peri-urban development do not seem to have been embraced, especially in the tribal areas.

## **4. Planning education in Botswana**

Having examined in detail Botswana's and the city of Gaborone's development challenges, this section of the report will examine whether planning education is attuned to the challenges posed and the degree to which the planning school at the University of Botswana has the capabilities needed to lead the next generation of planning practice, in light of the challenges posed by the economic, environmental, institutional and civil society changes under way. Section 5 will present recommendations aimed at more closely aligning the planning school with the needs of planning practice.

### **4.1 The Urban and Regional Planning Programme, University of Botswana**

#### *Institutional context*

The Bachelor of Science Urban and Regional Planning (B Sc URP) Programme at the University of Botswana was established in 1992 in the Department of Environmental Science in the Faculty of Science, since there was no planning school in the entire country. At the time, almost all planners were being trained in Tanzania. As the Department of Environmental Science was handling quite a



number of planning subjects at the time, it was asked to 'mother' the URP degree programme until such time as it could stand on its own feet. The programme was granted a semi-autonomous status in 1999, as a Unit of the Department of Environmental Science, and was given its own premises which house offices, planning studios, a lecture room and other ancillary facilities. In 2003, following a reorganisation of the university, a new Department of Architecture and Planning was formed in the Faculty of Engineering and Technology (Figure 3). This represented a constellation of academic and professional interests at the time. The continued growth and expansion of the planning profession worldwide and in Botswana, and its interdisciplinary ties with architecture, engineering and other development-related disciplines, have reached the point at which the University of Botswana is to establish itself as a leading architectural and planning, educational and research institution in Botswana and the SADC region.

*The need and demand for urban and regional planners*

The department was created to train planners in order to meet an acute demand for planners country-wide, and by 2000 the Planning Unit had produced close to 120 planners, but this was just a drop in the ocean in terms of meeting demand. The development challenges across the country, both urban and rural, are growing by the day and demand is difficult to satisfy.

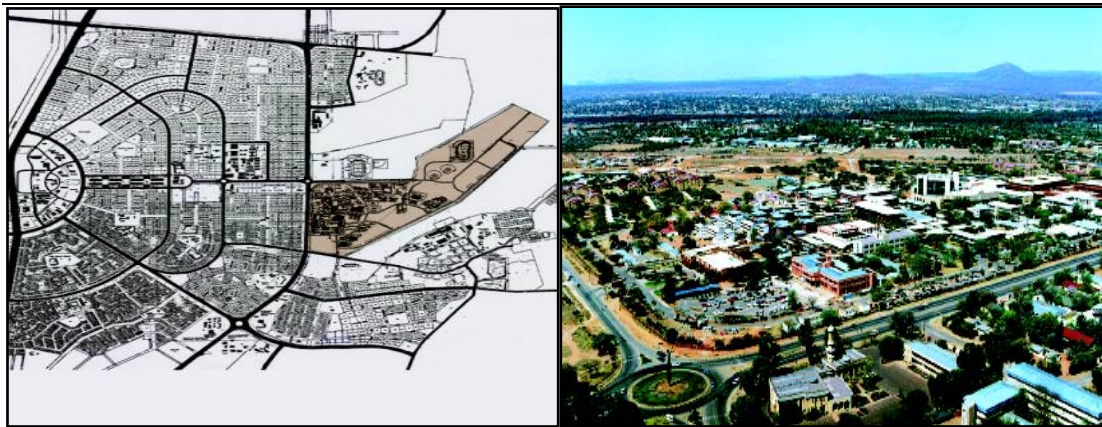
According to projections made in September 2000, the DTRP (Gaborone and Francistown office) had an establishment of 46 posts for professional planners, of which 4 were then filled by expatriates and another 6 posts were vacant. At the same time, local authorities (district and town councils) had a combined total of 57 posts of which 6 were filled by expatriates and 10 were vacant. Thus at that time, the DTRP and local authorities had a shortage of 36 local planners. This represented a vacancy rate of 35%. By the end of 2010 the DTRP and local authorities are expected to have a combined establishment of over 158 posts. Thus there is a need to train, between now and 2010, at least 45 urban planners to fill the projected establishment, as well as an extra 36 to fill the posts currently vacant or held by expatriate staff. This makes a total of 81 physical planners who need to be trained by 2010 for DTRP, district and town council postings. According to the University of Botswana URP Unit projection, based on annual growth rates of 0.3–0.5% projected by the government and the parastatal sector and the norm of 2 planners per 10 000 people, there is a need to train an additional 78 physical planners before the year 2010 for other employment sectors.

The recent surge in planners' resignations from the major employer (government) as they move to the private sector has resulted in a shortfall way below the above projected statistics. This has prompted government to declare the discipline of urban and regional planning (along with others like architecture and engineering) as a scarce skill, resulting in the introduction of a 30% annual salary allowance as a scarce skill and manpower retention policy for the planning profession.

**Figure 3: The Department of Architecture and Planning: Site Location**

University site

DAP site location



Source: Department of Architecture and Planning 2007

### *Departmental vision and mission*

The BSc programme is one of two programmes (the other being Architecture) being run in the Department of Architecture and Planning. The department is driven by a vision that can be captured in the following statement:

Our vision is to be a world class School of Architecture and Planning, built on a deep appreciation of African and international values, engaged in qualitative and meaningful pursuit of knowledge in order to fulfil the aspirations of the community in the continuing search for humane living and working environments. (Department of Architecture and Planning 2007: 13)

The department's educational philosophy, as expressed in this statement, is to be a key player in the transformation of the built environment, to create an environment that satisfies the highest ideals of the people of Botswana and the continent of Africa. The department is poised to provide a quality, values-oriented, innovative and technically sound training programme focused on the production of socially responsible practitioners in architecture and planning by conducting research that addresses critical issues in the environment; and by developing an advanced and continuously growing technical capability, with direct involvement in the resolution of problems in the built environment. The department has taken on the role of a custodian of knowledge about Botswana's history and cultures, deriving its inspiration from the achievement of the African people over centuries in the domain of architecture and planning of human settlements.

## **4.2 Staffing and resources**

### *Staffing*

Currently the planning stream of the department has a staff complement of eight academic staff, two technicians and a secretary. Of the eight academic staff three are associate professors; one is a senior lecturer and four are lecturers. The staff complement is expected to grow with the introduction of new programmes which are on the horizon.

### *Resources and equipment*

Until the completion of a new faculty building scheduled for 2010, the department will continue to utilise the existing space in the university. Though this is a constraint, the functions of the department are continuing smoothly.

Currently the department has a comprehensive spacious GIS/CAD laboratory which is a state-of-the-art facility in ArcGIS and ArchiCAD training, with over 60 computers available for teaching and use

by students. In addition, there are three scanners (A4, A3 and A0); three plotters; 3 photocopiers, one of which does colour work; two heavy-duty printers which are networked; and a fully equipped and functional model-making room. In the new facility in the faculty building, there are plans to have the following: specialised GIS/CAD/remote sensing and environmental planning laboratories for advanced spatial and environmental analysis; space for modelling and exhibiting facilities; additional computer rooms for postgraduate students.

The department has an in-house small reference/documents collection for use by both staff and students. This is supplemented by the university library which has an extensive collection of different textbooks, journals, project documents and other reading materials. In addition students are given free of charge books (two per subject) that are recommended for each subject by the teaching staff. On-the-spot assistance is provided by staff reference librarians. Students can access free of charge on-line searching facilities, and can access through the university campus-wide network CD-ROM databases.

### ***Research***

Lecturers are expected to take part in research projects regularly and publish research articles at conferences and in refereed journals and academic books. Unfortunately, the university provides limited research funds through its annual budget which are not adequate to support meaningful research. That is why lecturers (mostly expatriates) try to get funding individually by contacting various foundations, donors and sponsor agencies, most often from their home countries. This type of research usually helps junior citizen lecturers to pursue postgraduate qualifications.

Because of the chronic shortage of funds for research work, two options that could possibly improve the situation are being considered. There have been suggestions to lower taxes for industries and companies sponsoring university research projects. Similar benefits can also be achieved if lecturers take part in research work carried out to meet the needs of the Ministry of Lands and Housing, for example. The output from this kind of research consists of research reports and policy documents. There is also potential for research into the process of innovative professional practice. The latest initiative to do research on Botswana's Physical Planning Manual is an excellent example. The output of this kind of activity may be reports to professional bodies such as the DTRP, the Botswana Institute of Town Planners, the Botswana Institute of Development Professions, and others.

Finally, there is also research associated with creative endeavours in curriculum development, the changing and upgrading of learning methods, technologies and the teaching process. This may also involve research into teaching psychology and pedagogy of learning, as well as general reading, mass media, planning communications and negotiating, and public debating. The output of this research may be in the form of research papers and the development of formal curricula, but its effect on the quality of the lectures offered at the department is of considerable significance.

### ***Practitioner involvement in course design and future input to teaching***

Urban and regional planning staff have played an active role as planning consultants in numerous national and international project teams in the fields of planning, housing, design and environmental studies, through individual efforts and sometimes under the auspices of different organisations and consulting firms. The mission statement of the planning profession in Botswana calls for a continuation of these ventures and for the profound involvement of planning academics in the preparation of settlement and regional plans, detailed layouts and urban designs, as well as engaging professional practitioners in the teaching and learning process. Teaching planning and not being involved in planning and design practice is the same as practising medicine and law without patients and clients. Only close ties between planning practice and academia can help professional and research development and bring about improvements in teaching methodology.

### 4.3 Features of the urban and regional planning programme

In the 21st century, a professional planner's career in Botswana requires the ability to cope with multi-faceted developmental issues such as those cited in Section 1 of this report. The University of Botswana's BSc URP degree offers training in planning theory and practice and provides students with the technical expertise needed to create and evaluate different spatial scenarios and alternatives in line with the global environmental agenda. It combines theory, design and practice. It supports a commitment to democracy (traditional and modern), and equity and fairness as essential for the resolution of any burning spatial, development and environmental issues.

The URP programme trains future planners to be able to perform a wide range of roles in government's main agencies, community organisations, private consulting firms, and development and parastatal corporations. The programme aims at producing critical thinkers and professionals who will be able to implement the current planning agendas of the various plans cited in the previous section. The programme enables students to graduate as all-round planners, as well as specialists in any given socio-economic and environmental context in Botswana, the SADC region and the international arena. The intention is to offer a sufficiently firm conceptual and technical grounding to ensure that undergraduates are equipped to perform well and learn from any position in which a newly qualified planner might be employed. Such work might involve planning at any geographical scale from the local to the national, and could deal with essentially physical or spatial planning, or with a variety of social concerns linked to spatial planning and design.

By its nature the planning curriculum at the University of Botswana integrates knowledge developed within many disciplines such as geography, environmental planning, architecture, landscape architecture, economy, sociology, ecology, engineering, aesthetics, information science, geographic information systems, etc. The schooling of planners is a long and expensive process, and their practical engagement falls into the category of problem-solving and development professions. In developing countries like Botswana, such orientation has much more importance. This planning programme attempts to be flexible and modern, including local, regional and globally related topics. It is also an attempt to show the need for an internationally and regionally accredited planning school.

#### *Special features: A summary*

The curriculum covers sustainable development, social equity, participatory and deliberative training tools. Further, it emphasises technical skills such as statistical analysis and geographic information systems, communication skills such as working with officials and stakeholder groups, policy analysis, and analytical skills such as cost-benefit analysis, goals achievement matrices, project prioritisation methods and population growth projections in the research methods courses (see the course offerings in Table 4).

The planning programme has the following unique features:

- It combines instruction in physical design with instruction in policy/social science.
- Both urban and regional/rural planning are treated as equal sides of the coin.
- It provides design training in all its academic years.
- Planning theory is covered in all the years.
- Theory and practice have been given equal status.
- As much as possible, the students participate in 'live projects' for studio work.
- The students undertake a six-week field internship as well as one international trip to familiarise them with what is happening in other countries. During this period students are subjected to the codes, procedures, laws and other rules applicable in industry/organisations.

- The programme is alive and flexible, as it has been able to respond to local and global developments. For example, the following courses were not in the original programme but have since been introduced:

URP 405: Gender and physical planning

URP 406: Public participation in physical planning

URP 407: Planning and social theory

URP 408: Development impact assessment

The curriculum ensures professional preparation and allows students to take a variety of semester courses before they tailor a dissertation project to a particular area of planning specialisation. The curriculum is organised around a single major subject combining core and optional courses. The degree is normally completed in four years. Students have to take all core subjects and a number of chosen optional courses before they defend their thesis.

### *Course offerings and their rationale*

#### *Aim*

The aim of the URP programme is to train students to be able to function and work in the fields of human settlement development and urban and regional planning. The programme has been carefully developed to be broad-based, including courses from the Faculties of Science, Engineering, Humanities, and Social Sciences that are uniquely related to the cultural heritage of Botswana.

#### *Objectives*

The core of the programme is the consecutive courses in design, consisting of studio work augmented by lectures and seminars in humanities, technology, environment and professional practice. At the end of the programme students are able to:

- deal creatively and critically with urban planning problems on analytical, conceptual, and developmental levels;
- undertake challenging, formal planning inquiry that will develop in them an aptitude for functional and pragmatic development decisions, environmentally conscious design, and contemporary urban planning practice;
- exercise independent judgement rooted in an ever-changing context of urban planning thought.

#### *Rationale of the courses*

A number of courses were included in the programme with specific rationales as illustrated below:

- *Design and creativity:* All studio courses, viz. URP 208, URP 302, and URP 401.
- *Theory underpinnings:* Planning theory is covered in URP 200, URP 300, URP 407 and URP 400 to impart critical thinking among students.
- *Advocacy planning* calls for the distribution of planning services into low-income and minority neighbourhoods. Such knowledge is provided in URP 311, Settlement Upgrading; URP 409 Settlement Development Planning ; URP 412 Planning Negotiation and Contracting etc.
- *Citizen participation:* The department has included courses in public participation in an effort to meet the demand of communities and civil societies. These include URP 406 Public Participation in Physical Planning, URP 401 and URP 409. The last two courses teach planners how to prepare a settlement plan and show that planners have a responsibility to assist those who are affected by plans to develop skills to actively participate in the creation of the plans.

- *Civic engagement:* Civic engagement is imparted in URP 308 Planning, Policy and Politics.

### ***Entrance requirements.***

The BSc URP is offered as a Single Major Programme composed of ten semesters. Students who wish to register for the programme must satisfy any one of the following requirements:

- successful completion of Semesters 1 and 2 in the Faculty of Science;
- successful completion of relevant courses in Semesters 1 and 2 in the Faculty of Social Sciences;
- appropriate passes in relevant Advanced Level subjects or equivalent qualifications from a recognised university or equivalent institution, which may be considered on their own merit.

Satisfying the above requirements does not guarantee automatic entry into the programme. Students with the above qualifications must also take and pass at least two courses in each semester from a list of courses. Every year the URP programme admits between 15 and 20 students, 10% of whom may be international students.

### ***Modes of delivery***

Delivery is as follows:

- All theory classes are given in 2–3 lectures of 1–2 hours each per week. Currently, most lectures are given through the mode of face-to-face contact using traditional (white board) and electronic (Powerpoint presentation, video etc.) forms. A few lecturers have taken training in web-based class delivery (WEBCT/Blackboard) and are now busy preparing material to put on the intranet.
- In some instances tutorials are given to supplement teaching.
- Studios take the bulk of the student's time. For each semester students must undertake 2–3 studio exercises of 3 hours each. Most studio work involves 'live' projects that have been chosen by the lecturer in consultation with stakeholders in industry. This makes studio work more interesting and meaningful.
- Seminars, too, are given on a regular basis.

### ***Course structure***

The current semesterised BSc URP curriculum ensures professional preparation and allows students to undertake a variety of semester courses before they tailor a dissertation project in a particular area of planning specialisation in the final year. The curriculum is organised as a single major subject combining core and optional courses. This is also supplemented with general education courses. The degree is normally completed in three years. Students have to take all core subjects and a number of chosen optional courses before they defend their dissertation thesis (Table 4).

### ***Course content and curriculum***

The planning programme is geared to be flexible and modern and includes local, regional and globally related topics. It is also an attempt to build a case for the need for an internationally and regionally accredited planning school. The current syllabus is composed of four academic years of full-time study (1+3). The candidates must first complete one full-time common year of study at one of the departments of the Faculty of Social or Natural Sciences. There is also a possibility for the candidates who have completed adequate higher education (e.g. a planning diploma or its equivalent), to enrol directly in the third year of study. First-year students who wish to enrol in the URP programme must take and pass at least four courses from the course list given in the column under Year 1 in Table 4. They also have to take and pass Communication Skills and Introduction to Literature as compulsory subjects. The planning courses of study in the qualifying subjects for all

three professional years (Years 2, 3 and 4) are single majors divided into two groups: core and optional .

**Table 4: General and planning courses in the BSc URP programme**

<b>Year 1 – General courses</b>	<b>Year 2 – Planning Courses</b>
STA101 Mathematics for Business and Social Sciences	<b>Core –Semester 3</b>
STA111 Elementary Statistics	URP200 Introduction to Town Planning
STA116 Introduction to Statistics	URP201 Introduction to drawing techniques
MAT111 Introductory Mathematics I	URP202 Infrastructure planning and management
DCS101 Introduction to Computing Systems	URP203 Urban and regional economics
STA102 Mathematics for Business and Social Sciences II	URP204 Planning and history of settlements
STA112 Statistical Tools for Social Research	<b>Optional –Semester 3</b>
STA121 Elements in Probability	URP205 Environmental planning
MAT122 Introductory Mathematics II	URP206 Urban morphology
DCS102 Data Processing and Communication	<b>Core –Semester 4</b>
BIO111 Principles of Biology	URP207 Land surveying and cartography
CHE101 General Chemistry I	URP208 Site planning
ENV101 Introduction to the Physical and Human Environments I	URP209 Transport planning and management
PHY111 Geom. Optics, Mechanics, Vibrations and Waves	URP210 Planning techniques
PHY119 Physics Practicals 1	URP211 Internship
ECO111 Basic Microeconomics	<b>Optional –Semester 4</b>
SOC121 Introduction to Sociological Concepts and Principles	URP212 GIS for planners
SOC122 Dominant Sociological Themes and Perspectives	URP213 Globalisation and sustainable cities
SOC123 Social Structure of Society	
BIO112 Diversity of Animals and Plants	
CHE102 General Chemistry II	
ENV102 Introduction to the Physical and Human Environments II	
PHY121 Electricity, Magnetism and Modern Physics	
PHY129 Physics Practicals 2	
ECO112 Basic Macroeconomics	
SOC131 Introduction to Social and Cultural Anthropology	
SOC132 Introduction to the Study of Human Societies	
SOC133 Social Change in Botswana	
<b>Year 3 – Planning Courses</b>	<b>Year 4 – Planning Courses</b>
<b>Core –Semester 5</b>	<b>Core –Semester 7</b>
URP301 Urbanisation and planning	URP400 Philosophy and planning
URP302 Neighbourhood planning	URP401 Rural land use planning
URP303 Housing studies	URP402 Transport engineering for planners
URP304 Regional planning	URP403 Urban management and governance
URP305 Research methods and techniques	URP404 Dissertation project: research methodology
<b>Optional –Semester 5</b>	<b>Optional –Semester 7</b>
URP306 Remote sensing for planners	URP405 Gender and physical planning
URP307 Land and property valuation	URP406 Public participation in physical planning

Core –Semester 6	Core –Semester 8
URP308 Planning, policy and politics	URP407 Planning and social theory
URP309 Urban land use planning	URP408 Development impact assessment
URP310 Planning and environmental law	URP409 Settlement development planning
URP311 Settlement upgrading	URP410 Project planning and management
URP312 Dissertation project: directed readings	URP411 Dissertation project: final report
URP313 Internship II	
Optional –Semester 6	Optional – Semester 8
URP314 Land and property management	URP412 Planning negotiation and contracting
URP315 Building technology and materials	URP413 Urban agriculture

Note: Further details of these courses are given in the Appendix to this paper.

#### 4.4 Professional training

In addition to class work, URP students normally undergo an internship of six weeks' duration in a professional planning office after Levels 200 and 300. (Professional Training Course codes are URP211 and URP313.) During professional training students are subjected to the codes, procedures, laws, rules and other regulations applicable to the industry/organisation within the planning profession where they are working. They are supposed to engage in all aspects of planning, from preparation of design layouts, settlement plan preparation and research work to development control. Apart from giving the students the tools of office practice, internship prepares them for professional work after they graduate from the university.

##### *Assessment of professional training*

Professional training is assessed as specified in the Professional Training (Internship) Regulations for the Planning Programme. During each professional training period, students are visited twice at the location of their placement to be assessed by staff teaching on the programme.

A student's performance is normally assessed by means of:

- a confidential report from the student's immediate supervisor at the location of placement;
- professional training reports and a logbook submitted by the student at the end of each internship period;
- professional training visits by an assessor from the department.

The professional training sessions are evaluated as specified in assessment regulations. The ratio of Confidential Report marks to Professional Report marks to Professional Training Visits marks is 1 : 2 : 1. A student who has an incomplete grade is normally allowed to complete the Professional Training Course at a time recommended by the faculty. A student who fails to meet the requirements of the Professional Training Course is required to repeat the training at a time recommended by the faculty.

#### 4.5 Links with the planning profession

As discussed above, the main linkage with the profession currently lies in professional training, where students are placed in various planning bodies in their second and third years of study. However, other linkages lie in research partnerships between the industry and the department, and guest lectures by various actors from both the public and private sectors. The department has also had two academic staff members elected to the national planning body (the Pula Institute of Town Planners) in the capacities of Vice-President and Additional Member. The department has also established an agreement with the DTRP for partnership in the Settlement Development Planning Course, such that the course produces a development plan for a settlement advised by the DTRP each



year. This development plan is then adopted, with finer modifications, by the DTRP as an official document.

#### **4.6 International study trips**

The current curriculum provides for third-year students of planning to undertake international comparative studies within the SADC region to augment their planning studies. The department continues to review the structure of this international aspect, with the hope that it may be extended to two weeks instead of the current one-week period allocated. Plans are also under way to expand the scope from the current focus on South Africa, Namibia and Zimbabwe to other countries within the region.

#### **4.7 Revision of the curriculum**

The syllabus that has been used in the department is not static. It has been changing over time to keep up with new developments in the planning profession and the emergence of new planning paradigms, and also with the needs of the local and international markets. To date there have been several minor revisions and one major revision of the programme during the semesterisation programme. One major review is anticipated soon to accommodate the UK Royal Town Planning Institute (RTPI) accreditation requirements, i.e. moving from the current 1+3 mode to a full four-year stand-alone programme run from within the department. The review aims to introduce a four-year curriculum, with three specialisation streams. The targeted commencement of the reviewed programme is the 2009–2010 academic year. The review will also aim to add emphasis to the technical component of the programme, which under the current curriculum is not sufficiently developed.

#### **4.8 Academic standards, policies and quality assurance**

The department normally adheres to the standards of learning laid down by the university, which among other things include the following:

##### *Assessment and examinations*

Performance in URP courses is evaluated through a combination of continuous assessment and final examination in the ratio of 2 : 3 for theory courses and 1 : 1 for practical courses. The duration of examinations is normally 2 hours for 2-credit courses and 3 hours for 3-credit courses. Courses URP 211, URP 312, URP 313, URP 404 and URP 411 are assessed by continuous assessment only, as these are practical studio courses.

A project or design is evaluated by continuous assessment, oral presentation and/or demonstration and a written report. The ratio of the marks for continuous assessment, presentation assessment and written report is 2 : 1 : 1. Where a course includes a written final examination, a course with a credit value of 3 or more is examined by a formal examination of 3 hours, and 2 hours for a course with less than 3 credits. Overall performance in a course is specified in the General Regulation 00.84 of the university.

At present there are no supplementary examinations. A student who fails a core or pre-requisite or co-requisite course is required to retake the course when it is offered again. A student who has failed an optional/elective/general education course may retake the course or its equivalent.

#### **4.9 Academic policies**

The URP programme adheres to the academic policies established by the university, as articulated in the University of Botswana's documents and regulations. Students need to take responsibility for

reviewing them. In addition, the following guidelines provide the student with a general overview of what is expected during their stay at the university:

- Classroom code

A primary goal of the Department of Architecture and Planning is to prepare the student for entering professional planning practice. As a result, it is important that the students begin to demonstrate professionalism in every aspect of attendance, social interactions and academic performance.

- Class attendance

One of the goals of the programme is to provide students with a curriculum that will adequately prepare them for entering professional planning practice. All students are required to regularly attend all courses within the programme. Absences due to emergencies have to be discussed with the lecturer in advance. Ultimately, the lecturer will determine the effect of class attendance on final grades.

- Class participation

A crucial component of professional planning education relates to an understanding of and adherence to the values of the profession. Active participation in the classroom setting facilitates clarification and understanding of these values and ethics, as well as comprehension of the materials the class covers. The lecturer normally determines the quality and degree of classroom participation on final grades.

- Class work portfolio

Each planning student is required to keep a portfolio of all work completed in their courses. This portfolio should contain papers written by the student, examinations, copies of group projects, and any other graphic or written documents completed while in the programme. The students return the portfolios to the Coordinator of the Undergraduate Planning Programme during the final week prior to their graduation for evaluation. The purpose of this requirement is not to evaluate the student but to evaluate the educational objectives of the planning programme. In addition, portfolios are an excellent opportunity for prospective employers to evaluate any candidate's work. The portfolios have to be returned to students before they leave the university.

- Quality assurance processes

In the last two years the University of Botswana has introduced the PMS approach, with a major aim being to stimulate better productivity among staff in all major areas of teaching, research and community service. Every member of staff has to participate in this system fully and is evaluated both by the head of department as well as by students.

As part of a wider PMS, the quality assurance processes are implemented also through the peer review subsystems covering mostly teaching and exam activities.

The course is also in the process of being evaluated by the RTPI for accreditation so that students who graduate from the programme meet international standards. So far two visits have been made by the RTPI and a third one is expected before the end of 2008.

#### **4.10 Career prospects of the graduates**

As stated above, the Planning Unit educates future planners to fulfil a wide range of roles in government agencies, community organisations, private consulting firms, and development and parastatal corporations. Graduates with the BSc URP degree qualification are in very high demand by government, industry and the community and thus they have little problem in finding employment.

In the government sector planners are involved at all levels, from city and district councils to central government, with local governments employing the majority of planners. Botswana-trained planners will also find employment overseas in both developed and developing countries.

In private consultancies, planning consultants are contracted by private investors and developers, parastatal institutions, community groups, local councils and other government and non-government bodies.

Large development companies increasingly employ their own planners to design, develop and implement planning proposals.

A wide range of other professional groups, including engineers, lawyers, land developers, the construction industry, artists, designers, property managers, environmental and GIS specialists and others, utilise planners' skills and coordination abilities.

#### **4.11 Challenges facing planning in Botswana**

The planning profession is ever evolving, as is the global development and environmental agenda. The main challenge is preparing students to operate in response to these evolving concerns of 21st-century urban, regional and rural development. The introduction of technologies like GIS and CAD stands to equip students with the necessary technical expertise to compete in the 21st-century world. As already seen, the programme is always being revised to catch up with the latest planning paradigms and it is hoped that this will continue to be the case in the future. Another challenge it faces is the adoption of more proactive teaching and learning methods to impart knowledge. Lastly, there is always the challenge of resources, in terms of both staff and teaching equipment, to meet future requirements. These challenges have to be met head-on if the planning programme is to sustain itself.

### **5. The way forward: Future plans for the programme**

#### **5.1 National and global imperatives**

As discussed in Section 1 of this paper, as a nation Botswana is entering a new phase of economic development, making a transition from a resource-extractive economy to a knowledge-based economy. There is an increased demand for skilled graduate-level human resources capable of meeting the changing requirements of the labour market and of creating self-employment. There are expectations from policy-makers, employers, parents and students that the University of Botswana will produce employable graduates.

Globally, trends in higher education demand that the university produce graduates who are self-reliant and are competitive in the national and international job market. Occupational relevance and generic preparation of graduates for the world of work, life and productive citizenship should take centre-stage in University of Botswana programmes.

New programmes in the department should take into account the above observations if they are to be meaningful. The programmes have to meet the national goals and objectives; tackle the problems and challenges facing the country; achieve sustainable development and produce planners who are specialised in key areas rather than being generalists.

All departmental short- and mid-term plans relate to the areas of teaching, research and publications; staff training and recruitment; and facilities required to realise the department's goals and objectives. The objectives in each of these areas are discussed in the remainder of this section.

## 5.2 New programmes

Steps are envisaged to introduce new programmes and restructure the existing one soon as follows:

- Introduce a Master's Programme in Urban and Regional Planning, in response to a longstanding request from the government, first made in 1995/96, to meet urgent needs. A final proposal has been prepared by the department and will soon be presented to Senate for approval, and the first intake is expected to be in 2009. This programme will be run both full-time and part-time.
- There are also plans to introduce a Master's Programme in other fields such as Housing, Property Management and Valuation – again, this is a long-awaited degree programme following a request from both the Housing Department of the Ministry of Lands and Housing and from councils that have dire needs for such cadres. All training in these disciplines is currently done either in South Africa or overseas.
- Restructure the current three-year URP programme into a four-year programme. This need has been felt by both the department and by past external examiners of the programme. A draft is ready for submission to the faculty for consideration.
- A proposal to initiate the commencement of PhD training in Urban and Regional Planning has been submitted to the faculty for approval.

## 5.3 Teaching

In terms of teaching the department is striving to achieve the following:

- It is proposed to offer most of the programmes **part-time** as well as full-time in order to reach wider catchments than at present.
- The department has ventured into **e-learning** and is hoping to go into **distance education** in the future. As seen earlier, e-learning in the department is in its embryonic stage. Staff have received training in it and are currently in the throes of putting their teaching material onto the intranet for wider access by students.
- The department has embraced and will continue to follow the university's 'Learning and Teaching Philosophy' that is based on the principle of '**intentional learning**', which places an emphasis on pedagogical strategies that encourage active learning, the achievement of learning outcomes and the development of self-directed, independent learners who have learned how to learn. This is in contrast to the past content-oriented teaching strategies that focused primarily on 'covering the material' and passive learning. Intentional learning entails an overriding focus on learning and teaching strategies that enable students to ascend through levels of study in diverse academic programmes to achieve their learning outcomes (University of Botswana 2007).
- The philosophy translates into the following educational principles, which reinforce the university's values:
  - ♦ **Innovation**  
Approaches to learning should be creative, diverse and flexible and should benefit from the application of appropriate technologies. For urban planning this is very necessary.
  - ♦ **Learner-centredness**  
Learning and teaching processes should adapt existing methods and techniques, adopt new ones and adjust to the learners' style and pace of learning, and focus on the achievement of the learning outcomes. This will specifically require timeliness, detail and quality of feedback in assessing students.

- ♦ **Lifelong learning**  
Learning and teaching should empower learners to become active and independent and to acquire skills and attitudes which will equip them as capable lifelong learners. This is critical for physical planners.
- ♦ **Internalisation**  
Our planning students should acquire cross-cultural perspectives and respect for different values, and possess transferable skills in order to enable them to live and work in a global environment – e.g. in SADC, African or other countries.
- ♦ **Equity and diversity**  
Learning and teaching should promote equal opportunity and non-discrimination on the basis of personal, ethnic, religious, gender or other social characteristics.
- ♦ **Academic freedom**  
Learning and teaching should be committed to promoting free critical thinking, including reasoned dialogue and debate, while accepting a diversity of beliefs and understandings.
- ♦ **Collaboration**  
Collaboration should be encouraged through lecturer and student interaction to create a holistic environment which ensures that learning is the central focus.
- ♦ **Quality assurance**  
The quality of learning and teaching should be enhanced through scholarship, research, continuing professional development and the sharing of good practice.
- ♦ **Academic progression**  
Current and prospective planning programmes should be coherent and cohesive, within a credit framework, enabling students to make informed choices and decisions, and providing clear progression.
- The goals of the Learning and Teaching Policy (LTP) (University of Botswana 2007) are:
  - ♦ ensuring the relevance of learning and teaching so that students are prepared for life, work and citizenship;
  - ♦ making the learning experience a positive, rewarding and satisfying one for students;
  - ♦ managing education change;
  - ♦ evaluating and continually improving the quality of learning and teaching;
  - ♦ directing and supporting the enhancement of learning and teaching experience;
  - ♦ promoting the scholarship of learning and teaching;
  - ♦ rewarding academic staff for excellence in teaching.

- It is anticipated that the following graduate attributes have to be achieved by all students:
  - ♦ ICT knowledge and skills;
  - ♦ self-directed, lifelong learning skills;
  - ♦ critical and creative thinking skills;
  - ♦ problem-solving skills;
  - ♦ communication skills;
  - ♦ entrepreneurial and employability skills;
  - ♦ organisational and teamwork skills;
  - ♦ research skills and information literacy;
  - ♦ social responsibility and leadership skills;
  - ♦ interpersonal skills;
  - ♦ cross-cultural fluency;
  - ♦ accountability and ethical standards.

These provisions in the University of Botswana policy as well as the departmental policy accordingly mandate and invite:

- inputs from employer-stakeholders for inclusion in course content and skills training – this is a practice we already embrace and use;
- continued use of internships and other forms of work experience and student participation;
- engagement of learners in a range of enriching co-curricular activities focusing on employment skills.

Under this policy, all our new programmes will be required to demonstrate how these graduate attributes will be integrated into curriculum design and assessment.

### ***Implications of the LTP for curriculum review and development in the Department of Architecture and Planning***

The department will have to realise that it is no more 'work as usual'. The current programme curricula will have to be reviewed accordingly. An effective starting point for the process of review and development should be the determination of appropriate objectives or outcomes. These outcomes should be what the students can be expected to be able to do by the conclusion of the programme.

These outcomes should include content-based skills such as problem-solving, analysis etc. and generic skills such as written and oral communication and computer literacy, especially with regard to planning software for design and projections.

The choice of particular outcomes will vary across course units, as will the level of attainment.

Course content should be chosen on the basis of what students need to know to meet the set learning objectives.

### ***New teaching approach***

The process of course review consists of much more than judgements about the quality and quantity of content. The teaching methods (including assessment procedures) to be adapted by staff will affect the choice of learning methods adopted by students. Pedagogical approaches will have to be adopted that create an environment which will assist the achievement of the learning objectives. Staff should

make deliberate, informed choices on learning modes by going for flexible modes. Such modes value and invite student input based on their work and/or life experiences. They enable learning to be based on information technology packages and are facilitated by course design and choice of teaching and learning materials, methods, assessment etc.

The department will strive to follow the university policy that advocates a move from the delivery of classes from a Face-to-Face (F2F) to a Blended Approach. Though the F2F approach has been used for quite a while at the university (and still is), it gives rise to many challenges in regard to student experience of the approach, for example boredom, and a diversity of needs in the classroom such as some students being shy to talk in front of others, good learners and slow learners not mixing well, and so on.

So the University of Botswana is now pioneering the use of WEBCT/Blackboard technology for all staff, and has adopted a Blended Learning method of curriculum development and delivery of knowledge – i.e. a combination of F2F and e-Learning.

This Blended Learning approach has many advantages, viz.:

- It takes advantage of the best of each method and tries to avoid the weaknesses of both.
- F2F learning opportunities will continue for most students, especially those who prefer auditory learning methods.
- The approach promotes equity of participation, flexibility and individualisation of learning.
- Learning becomes a continual process rather than a distinct event or a one-time activity, as a habit of mind for continuous development.

However, a word of caution should be offered here:

- It is often assumed that good F2F teachers naturally know how to teach online. This is not always so. They often try to replicate F2F practices in the e-learning environment and end up having limited success in teaching online.
- F2F teachers may be ill-prepared and -equipped to face such changes. They need support to redesign courses, course management techniques and assessment strategies, and to make a smoother transition by focusing on best online teaching practices.

### ***Communication tools to be used***

As staff in the department move into e-learning, they will deliver their lectures using various communication tools. These include:

1. asynchronous tools, such as mail, discussion forums, messaging, collaborative websites such as blogs and Wikis and podcasts; and
2. synchronous tools such as chat rooms and video conferencing.

The whole idea is to promote discourse and harness 'collective intelligence', facilitate private conversation between the lecturer and students (by mail), facilitate student-student-lecturer interaction that can help build a sense of community in the course (discussion forums, group manager) and finally to provide a private space for students to reflect on their learning and for the lecturer to provide quick feedback (ledger).

Further, it is known that communication tools encourage contribution from students who may be shy to speak out in a F2F environment (mail, blog, journal etc.). For example, the 'Who's Online' tool identifies which students doing the same course are online at a given time. This is a tool that facilitates instant student-student interaction; students can participate in discussions at any time, receive feedback and

learn from one another (discussion); can create blogs on a specific idea/theme and can reflect on course materials and share ideas and resources; can provide opportunities for group projects and international collaboration and can create space for frequently asked questions (FAQs) to be answered.

#### **5.4 Research and publications**

In terms of research it is proposed:

- to increase research output from the department, and this has to be on burning planning issues in the country;
- to promote more staff involvement in inter- and multidisciplinary research by taking advantage of local and external funding, like that provided by SACUDE, MDP, UNCHS, EU etc.;
- to encourage mentorship of junior staff in research and publications;
- to encourage students to do research addressing pressing national issues in the field of human settlements, urban sustainability, urban governance, environment, poverty, HIV/AIDS etc.;
- to encourage staff to publish in recognised journals and magazines, and write books or chapters in books in relevant areas;
- to introduce departmental staff seminars in order to increase awareness of, and stimulate interest in, individual and group research;
- to introduce an interdisciplinary journal which covers topics in the built environment. This will be introduced independently or in cooperation with other institutions in the region.

#### **5.5 Consultancy work**

Consultancy work, involving cooperation with industry and government agencies should be undertaken, including the following:

- establishment of a Centre for Architectural and Planning Services, to encourage staff to be involved in government and industry projects;
- registration of the Centre with the Central Tender Board of the Republic of Botswana;
- securing an active involvement of all staff members in professional scrutiny of important government and other projects.

#### **5.6 Facilities for teaching**

Changes to the current teaching facilities will involve:

- improving the current teaching and research space in the department;
- seeking additional space for the Architecture Department's teaching activities.
- a request for equipment to meet the growing needs of the department.

These are indeed ambitious plans, but the department is determined to pursue this route to keep up with the ever-changing academic and professional needs of urban planning. The good thing is that both the university and the government have the will and the capacity to provide the support needed to realise these intentions.



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## Appendix

### BSc URP course modules and course descriptions

#### Year One

Students take a basket of subjects from either the Faculty of Science or the Faculty of Social Sciences.

##### Semester 1

STA101	Mathematics for Business and Social Science
STA111	Elementary Statistics
STA116	Introduction to Statistics
MAT111	Introductory Mathematics I
DCS101	Introduction to Computing Systems

##### Semester 2

STA102	Mathematics for Business and Social Sciences II
STA112	Statistical Tools for Social Research
STA121	Elements in Probability
MAT122	Introductory Mathematics II
DCS102	Data Processing and Communication

In addition, students take and pass at least two courses in each semester from the following:

##### Semester 1

BIO112	Principles of Biology
CHE101	General Chemistry I
ENV101	Introduction to the Physical Human Environments I
PHY111	Geometrical Optics, Mechanics, Vibrations and Waves
PHY119	Physics Practicals 1.1
ECO111	Basic Microeconomics
SOC121	Introduction to Sociological Concepts and Principles or,
SOC122	Dominant Sociological Themes and Perspectives
SOC123	Social Structure of Society

##### Semester 2

BIO112	Diversity of Animals and Plants
CHE102	General Chemistry II
ENV102	Introduction to the Physical and Human Environment II
PHY121	Electricity, Magnetism and Modern Physics
PHY129	Physics Practicals 1.2
ECO112	Basic Macroeconomics
SOC131	Introduction to Social and Cultural Anthropology or
SOC132	Introduction to the Study of Human Societies or
SOC133	Social Change in Botswana

#### Year Two

##### URP200 INTRODUCTION TO TOWN PLANNING (2 credits)

The course focuses on understanding the need to plan the emergence of modern town planning and the foundations of town planning legislation. It also provides an insight into the organisation and administration of town planning, the Planning Process, Survey preparation and techniques of analysis and development control. Highlighted also is the role of planners in dealing with current topical problems and issues in modern day living.

URP201 INTRODUCTION TO DRAWING TECHNIQUES (2 credits)

The course introduces students to the art, science and techniques required to communicate graphically through drawings related to layout planning, design and construction of buildings and other structures.

URP202 INFRASTRUCTURE PLANNING AND MANAGEMENT (2 credits)

The course covers the history of the provision of line infrastructure from a public health perspective.

URP203 URBAN AND REGIONAL ECONOMICS (2 credits)

The course is designed to cover basic economic concepts and theories used in Urban and Regional Planning.

URP204 PLANNING AND HISTORY OF SETTLEMENTS (2 credits)

The course introduces students to the variety of urban settlements over the course of 5000 years from the Sumerian civilisation in the 3rd millennium BC until the functionalist urban forms created by modernist in first half of the 20th century.

URP205 ENVIRONMENTAL PLANNING (2 credits)

The course provides a clear overview and analysis of environmental factors in the formulation of development plans and projects.

URP206 URBAN MORPHOLOGY (2 credits)

The course helps students to understand the structures and shapes of urban space covering physical, social, functional and ecological dimensions of a city.

URP207 LAND SURVEYING AND CARTOGRAPHY (2 credits)

The course introduces students to basic elements of land surveying and cartography including linear measurements, levelling and cadastral surveying; making, interpretation and reproduction of maps; coordinate systems; map projections; data manipulation, classification and generalisation; profiles and land surface forms. Interpretation of air photos, satellite images, etc.

URP208 SITE PLANNING (2 credits)

The course covers definitions and scope of site planning; site analysis in terms of the natural, physical and social environments and user requirements; planning standards; and development control.

URP209 TRANSPORT PLANNING AND MANAGEMENT (2 credits)

The course introduces students to transport planning, the procedure of land-use transportation planning process, techniques for estimating future demands for movement, traffic management.

URP210 PLANNING TECHNIQUES (2 credits)

This course introduces students to: methods and techniques used in planning; research methods; and report writing.

URP211 INTERNSHIP (1 credit)

The purpose of this course is to provide opportunities to make the transition from school to professional planning, by translating knowledge into effective action, through field placement. The internship component is available to all students registered in the URP Programme.

URP212 GIS FOR PLANNERS (2 credits)

The course introduces the student to the design and use of computerized geographic information systems (GIS), focusing on their significance for planning.

URP213 GLOBALISATION AND SUSTAINABLE CITIES (2 credits)

The course is designed to help students understand how forces and processes of globalisation affect or impact upon the search for sustainable cities in developing countries.

### **Year Three**

#### **URP301 URBANISATION AND PLANNING (2 credits)**

The course explores the linkages between the urbanisation processes and urban planning. Emphasis is on different interpretations of the urbanisation process and how these interpretations shape planning interventions. The focus is on developing countries particularly sub-Saharan Africa.

#### **URP302 NEIGHBOURHOOD PLANNING (2 credits)**

The course introduces students to the art and science of collecting and analysing data for large areas and determining land suitability for various land use activities. It covers the neighbourhood concept; site inventory and data analysis; techniques for land suitability analysis; land use compatibility; traffic circulation and safety; accessibility; neighbourhood centre design and requirements; provision of social, community, recreational and commercial facilities; employment generation and neighbourhood identity.

#### **URP303 HOUSING STUDIES (2 credits)**

The course discusses basic issues that affect the supply and demand for various types of houses in both rural and urban areas; various options for providing quality and sustainable housing for various income groups; and housing policies, programmes and strategies in Botswana and other developing countries.

#### **URP 304 REGIONAL PLANNING (2 credits)**

This course provides a synthesis of the science of spatial systems with the art of planning and management and focuses on the analysis of spaces, regions and locations.

#### **URP305 RESEARCH METHODS AND TECHNIQUES (2 credits)**

The course is designed to familiarize students with different research methodologies and data collection techniques used in urban and regional planning.

#### **URP306 REMOTE SENSING FOR PLANNERS (2 credits)**

The course introduces students to air-photo interpretation and remote sensing, and application of these tools to solving urban and regional planning problems.

#### **URP307 LAND AND PROPERTY EVALUATION (2 credits)**

The course starts with an introduction to the property market, the different types of property, use and function of property, the organisations and individuals that require and trade in property, and the dealing methods employed. The basic characteristics of real estate, and the principal factors affecting value are then considered, followed by the concept of valuing a legal interest in land, and not the property itself. The course also examines the appropriate valuation techniques employed in assessing the open market value of different types of property, why valuations are required and the concept of intrinsic worth. The difference between open market value (property exchange price) and worth to the individual is finally introduced.

#### **URP308 PLANNING, POLICY AND POLITICS (2 credits)**

The course is designed to help students appreciate the linkages between planning and politics and how these shape policy formulation and planning institutions and procedures.

#### **URP309 URBAN LAND USE PLANNING (2 credits)**

The course explores both theoretical and practical underpinning of urban land use planning helping the students to understand urban planning movements, the nature of different types of urban plans, their elements and the process of their preparation.

#### **URP311 SETTLEMENT UPGRADING (2 credits)**

The course is designed to help students understand basic issues in the upgrading, re-planning or

redevelopment of infrastructure, housing and/or community services in existing communities in both rural and urban areas; determine optimal uses and resolution of land use conflicts in spontaneous settlements; assess conditions in existing substandard settlements and prepare an upgrading programme for the same.

**URP312 DISSERTATION: DIRECTED READINGS (1 credit)**

The course consists of guided reading on the literature and research techniques applicable and relevant to the student's research topic.

**URP313 INTERNSHIP II (2 credits)**

The purpose of this course is to provide opportunities to make the transition from school to professional planning, by translating knowledge into effective action, through field placement. The internship component is available to all students registered in the URP Programme.

**URP314 LAND AND PROPERTY MANAGEMENT (2 credits)**

The course is designed to introduce students to the following: aspects of land as an asset; types of land ownership; land management practices; property ownership; and property management practices.

**URP315 BUILDING TECHNOLOGY AND MATERIALS (2 credits)**

The course introduces students to basic techniques and issues in the construction of simple structures as well as factors that affect the quality and suitability of common building material.

**Year Four**

**URP400 PHILOSOPHY AND PLANNING (2 credits)**

The course is designed to enable students to appreciate the different philosophical debates that inform urban planning practice.

**URP401 RURAL LAND USE PLANNING (2 credits)**

The course teaches the planning students how to prepare the Survey Report which is the first step in practical preparation of development plans for small settlements and rural territories. The course covers data collection, analysis and interpretation, and review of issues and opportunities.

**URP402 TRANSPORT ENGINEERING FOR PLANNERS (2 credits)**

This course covers transportation systems characteristics, technological utility; design of roads and land transportation terminals; traffic flow concepts.

**URP403 URBAN MANAGEMENT AND GOVERNANCE (2 credits)**

The course aims to bring awareness to the fact that good urban governance can lead to better managed cities. It is argued that good urban governance is characterized by sustainability, decentralisation, equity, efficiency, transparency and accountability, civic engagement and citizenship, and security, and that these norms are interdependent and mutually reinforcing.

**URP404 PROJECT: RESEARCH METHODOLOGY (2 credits)**

The course is designed to help students produce an acceptable research proposal.

**URP405 GENDER AND PHYSICAL PLANNING (2 credits)**

The course is a critical introduction to gender sensitive planning, emphasising the different needs of men and women as users of space and how these have been incorporated in physical planning in developing countries.

**URP406 PUBLIC PARTICIPATION IN PHYSICAL PLANNING (2 credits)**

The course explores various conceptualization of participation in physical planning. Students will be taken through Arnstein classical ladder of citizen participation to more contemporary and radical views of participation as a self empowerment and re-discovery project.

URP407 PLANNING AND SOCIAL THEORY (2 credits)

The course traces how debates in social theory have shaped the urban planning discipline. Emphasis is on contemporary social issues. Topics covered include theories of social action, structural Marxism, post structuralism and critical theory.

URP408 DEVELOPMENT IMPACT ASSESSMENT (2 credits)

This course helps students to understand a Development Impact Analysis as a process of estimating and reporting the effects of future land developments and construction.

URP409 SETTLEMENT DEVELOPMENT PLANNING (2 credits)

The course is an extension of URP 401 and the students will be in position to apply the art and science of settlement development plan preparation including visioning, goal setting; projecting and forecasting, development of alternatives and planning proposals, phasing and implementation schedules.

URP410 PROJECT PLANNING AND MANAGEMENT (2 credits)

The course is designed to expose students to project level of planning; management requirements in planning offices; the identification of Projects; project analysis; and project preparation.

URP411 PROJECT REPORT (2 credits)

The course seeks to assist students in producing a dissertation in partial fulfillment of an award of a degree in urban and regional planning.

URP412 PLANNING NEGOTIATION AND CONTRACTING (2 credits)

The course examines and teaches contracting procedures, communication and negotiation techniques and skills suitable for application in planning project and public participation environs.

URP413 URBAN AGRICULTURE (2 credits)

A presentation of the various aspects of the concept and practice of urban agriculture. These include: global significance of urban agriculture; what is urban agriculture; benefits, problems, constraints and future of urban agriculture.

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