

ABBREVIATIONS AND ACRONYMS

BPC	Botswana Power Corporation
BOTEC	Botswana Technology Centre
BTC	Botswana Telecommunications Corporation
CASD	Centre for Advanced Sustainable Development
CBNRM	Community Based Natural Resource Management
CBO	Community Based Organisation
DBSA	Development Bank of Southern Africa
DEA	Department of Environmental Affairs
DES	Department of Environmental Science
EIA	Environmental Impact Assessment
GWP	Global Water Partnership
HOORC	Harry Oppenheimer Okavango Research Centre
IEM	Integrated environmental management
ISO	International Organisation for Standardization
IWMI	International Water Management Institute
IWRM-WE	Integrated Water Resource Management – Water Efficiency
MDP	Masters in Development Practice
MDG	Millennium Development Goal
NDP	National Development Plan
NWMP	National Water Master Plan
SAAEA	Southern African Alternative Energy Association
SADC	Southern African Development Community
SAIEA	Southern African Institute for Environmental Assessment
SD	Sustainable Development
SEA	Strategic Environmental Assessment
SHE	Safety, Health and Environment
UB	University of Botswana
WDM	Water Demand Management
WSSD	World Summit on Sustainable Development
WWF	World Wildlife Fund for Nature



ABOUT BOTSWANA

OVERVIEW

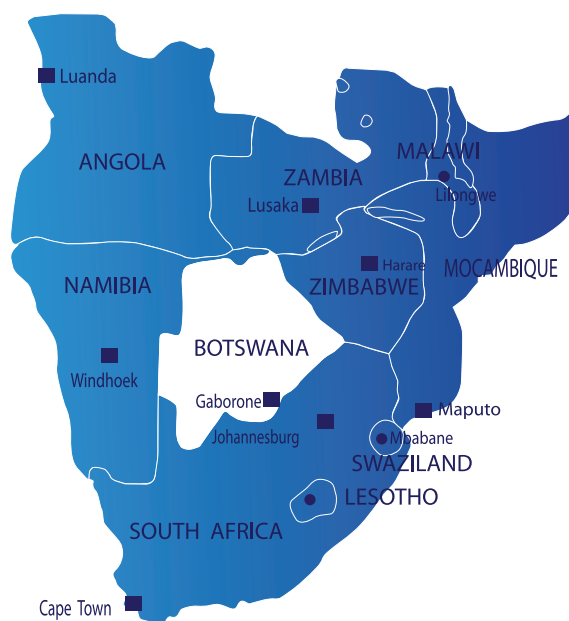
Botswana, a landlocked country in southern Africa bordered by South Africa, Namibia, Zambia, and Zimbabwe, achieved independence in 1966. At that time Botswana was considered one of the poorest countries in the world. Shortly after, the government was able to maintain a balanced budget without donor assistance. Within the last forty years Botswana has established itself as a model of development in Africa, with middle income status and an average annual growth rate of 9%.

Botswana's total area of 581 730 sq km is comparable in size to France and slightly smaller than the state of Texas. It is a semi-arid country, with a sub-tropical climate due to the relatively high altitude. The average temperature is 21.2 °C (70 °F) with an average range of 10.5 °C.

Botswana is a multi-party democratic republic recognised for its democracy, political stability, good governance and economic management. Elections are held every five years on the basis of universal adult suffrage and the president is elected by the National Assembly for a concurrent term of office. Opposition parties operate freely and are represented in the National Assembly.

Consistent with its reputation for democratic and constitutional governance, Botswana has maintained a sound human rights record. Freedom of opinion is guaranteed, with a culture of open consultation that is characterised by lively discussions.

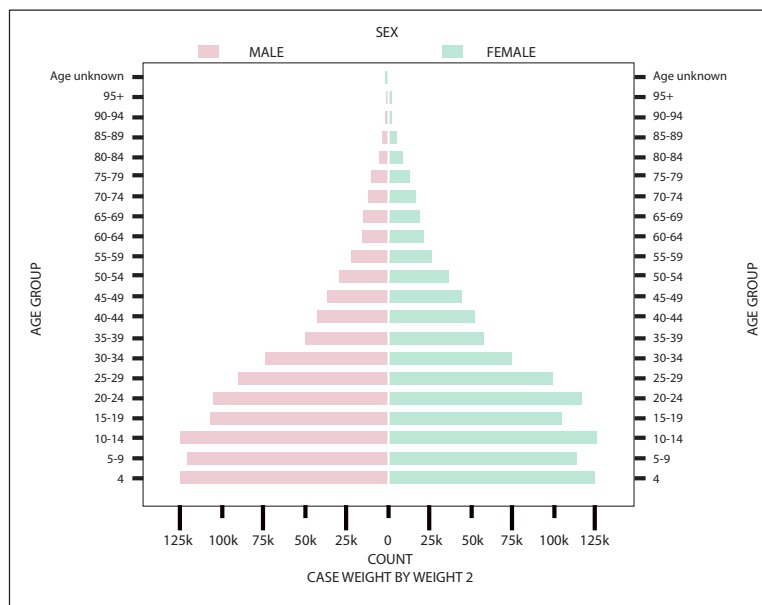
The judiciary is independent of the executive and the legislature and it provides strong protection of property rights. Botswana's population has increased over the years largely as a result of improved health. The 2010 population projection is 1 799 000.



Population Projection (1000)

Year	Male	Female	Total
2006	837	882	1 719
2007	847	888	1 735
2008	859	896	1 755
2009	871	904	1 755
2010	885	914	1 799

Source: Central Statistics Office Botswana Demographic Survey 2006



The Gross Domestic Product (GDP) for 2009, based on Purchasing Power Parity (PPP), was estimated to be \$26 520 million. With a per capita income of \$13 992, Botswana's global ranking by the International Monetary Fund is 58th.

The mining sector contributes 26.0% to the GDP, followed by banks, insurance and business services at 12.4%, hotels and restaurants 4.9%, and agriculture 3.0%.

LIVING IN BOTSWANA

Visa Requirements

Entry visas are not required for citizens of the countries of the European Union, the United States of America and the Southern African Customs Union member states, of most Commonwealth countries and some of the Southern African Development Community. Citizens of other nations must obtain a visa prior to arrival from Botswana Embassies and High Commissions.

Personal Taxation

Botswana's tax rates remain among the lowest in southern Africa. Both the top income tax rate and the top corporate tax rate are 25 per cent. Income tax is levied on personal income and gains for each tax year. It is source-based, levied on income generated or deemed to be generated in Botswana, and it is administered under the Income Tax Act.

Quality of Life

In 2010 Botswana is currently ranked 2nd after Mauritius within Sub-Saharan Africa, and 93rd globally, according to the Human Development Index. Botswana's score is 0.655 while Mauritius is 0.748. The HDI is a comparative measure of life expectancy, literacy rate, education and standards of living for countries worldwide.

Over the five-year period between 2005 and 2009 the average inflation rate was 9.34%. The Bank of Botswana's objective is to maintain inflation within the 3-6 per cent range, although Botswana's high dependence on imports of food and petroleum products contributes significantly to raising inflation beyond the national targets.

Crime Rate

Botswana has one of the lowest crime rates in the region. The government has enacted the necessary legislation to support the law enforcement agencies to fight local and trans-national organised crime.

Drinking water

Potable water across the country is treated to meet the WHO Guidelines for Drinking Water.

Electricity

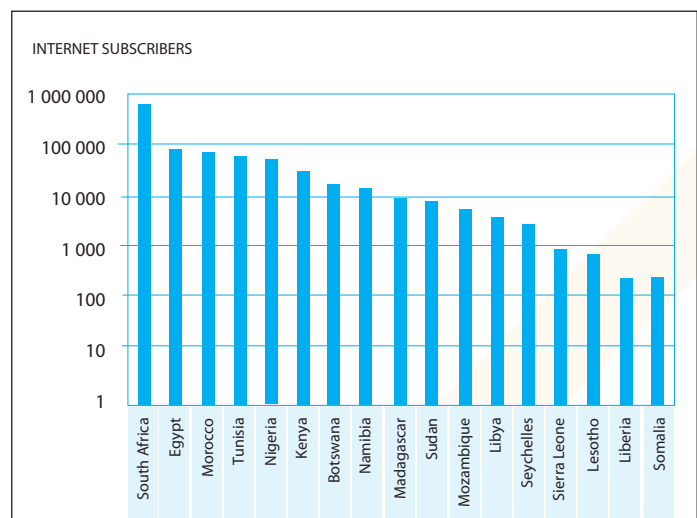
The bulk of Botswana's energy capacity is thermal, mainly coal fired. More than half of Botswana's power requirements are imported from South Africa and Zambia. However, the establishment of a major coal fired power sta-

tion, taking advantage of vast coal reserves, will position Botswana as a net exporter of electricity by 2013, with an estimated total supply and demand of 1 070 and 790 MW, rising to 1 730 and 880 MW by 2016.

Telecommunications and Information Communication Technology

A range of communications products and services include wired and wireless networks, basic voice telephony and voice messaging, Internet Protocol-based networks and solutions, high speed internet access, data networks, customer premises equipment, fibre optic connectivity solutions and online directory services. The liberalisation of the telecommunications market in 2006 increased efficiency and led to the establishment of the three national mobile operators, Mascom Wireless Botswana, Orange Botswana and BeMobile. The service neutral licenses enabled the national operators to offer a broad range of telecommunications services under one license.

Internet Subscribers by Country



Source: The United Nations Information and Communication Technologies Task Force

The connection of Botswana to the undersea fibre optic cables on the east and west coasts of Africa will position Botswana for a more efficient high speed broadband internet, data transmission and internet penetration, consistent with the objectives of the national Information Communication Technology policy.



Family Health

In addition to an extensive network of close to 300 clinics, 400 health posts and 850 mobile posts, primary health care services in Botswana are integrated within overall hospital services provided to the population in the out-patient sections of primary, district and referral hospitals. There are public and private health care services, including Gaborone's newly commissioned state-of-the-art Bokamoso Private Hospital, which has been designated the national referral centre.

Botswana has a national policy on HIV/AIDS prevention and care that outlines government's response to the epidemic.

Pre-Primary to Secondary Schooling

Botswana offers opportunities for enrolment in pre-primary, primary through secondary schooling, leading to the country's internationally recognised public and private tertiary institutions.

Attractions

The game reserves of Botswana are popular destinations for animal viewing and photographic safaris. The Central Kalahari Game Reserve (CKGR), the world's second largest protected area, Chobe National Park, Khutse and Moremi Game Reserves and the Kgalagadi Trans-Frontier Park are popular for their different species of animals, reptiles and birds. They contain a diversity of wildlife including lions, African elephants, buffaloes, leopards and rhinoceros.

The Okavango Delta, the Kalahari Desert and the grasslands and savannas are home to the blue wildebeest, many antelopes and other mammals and birds. Botswana still has a few of the endangered animal and bird species which are almost extinct in other African countries, such as rhinos, which are found in the Mokolodi Game Reserve near Gaborone and the Khama Rhino Sanctuary near Serowe village.

The Chobe National Park has the world's largest concentration of African elephants while the Okavango Delta, with its exceptional natural beauty, is the world's largest inland river mouth. It is formed where the Okavango River empties into a swamp in the Kalahari Desert, where most of the water is lost to evaporation. The Makgadikgadi Pan, a large salt flat in the middle of the dry savanna of north-eastern Botswana, is one of the largest salt pans in the world.

Botswana is notably well endowed in wildlife resources and is experiencing a significant growth in tourist demand. The country ranked fifth in southern Africa in 2008, with 2.1 million tourist arrivals in comparison to South Africa which ranked second with 9.5 million tourist arrivals.

It is of interest that about 20% of Botswana has been set aside as National Parks and Game Reserves, all of which are surrounded by, where possible, areas designated as Wildlife Management Areas in which the interests of wildlife have preference. In fact more than 34% of the country is preserved for conservation of wildlife. None of these protected areas are fenced, allowing game complete freedom of movement.

BUSINESS IN BOTSWANA

Corporate Registration

The Companies Act, which imposes strict obligations on corporate governance, requires that all entities must be classified as a private company, exempt private company, public company or a close company. The Companies Act provides for compulsory compliance for the accounting records of businesses to be maintained in Botswana, and for a qualified company secretary and auditor to be appointed for non-exempt private and public companies, among others.

The process for company registration, from the initial reservation of a company name through to the issue of the registration certificate by the Registrar of Companies and Intellectual Property, has a turn-around time of ten working days. The Botswana Export Development and Investment Authority (BEDIA) plays a facilitative role in assisting potential investors to set up in Botswana through its One-Stop Service Centre.

Business Taxation

Botswana's tax rates remain among the lowest in southern Africa. Both the top income tax rate and the top corporate tax rate are 25%. Company tax is levied at 15% and Additional company tax at 10%. Other taxes include value added tax (VAT) and inheritance tax. VAT is an indirect tax levied at 12% on the supply of goods and services consumed within Botswana. It is not a business expense because it is borne by the consumer.

Regulatory Environment

Botswana operates a best practice and international standards-compliant legal and regulatory environment, has acceded to international conventions, and strictly observes internationally accepted guidelines on combating money laundering and financial crimes.

The Bank of Botswana and the Non Bank Financial Institutions Regulatory Authority (NBFIRA), individually and in collaboration, ensure maintenance of a robust supervisory framework for financial stability. The NBFIRA is the regulator of Botswana registered and domiciled non-banking financial entities including pension funds, asset management, consumer/micro lending, insurance and collective

investment undertakings. The Bank of Botswana regulates the banks and banking operations.

The regulatory authorities in the education sector are the Tertiary Education Council (TEC) and the Botswana Training Authority (BOTA) with the mandate to, respectively, register tertiary institutions and monitor the performance of the vocational training system. For registration of a new institution, from the time of submitting an application through to a final decision being taken, the turn-around time is approximately 3 months. The two organisations will be merged to operate under one legislation by 2012.

Work and Residence Permits

Work and residence permits are required for the employment of non-citizens. To make it easier to acquire skilled human resources, the Immigration and Citizenship Act and the Employment of Non-Citizens Act, which govern the requirements for permanent residence and citizenship, are continually reviewed.

ADVANTAGES OF INVESTING IN BOTSWANA

The Ease of Business Start-up and Operation

Botswana has investor-friendly business reforms. BEDIA is an autonomous organization established in 1998 to promote investment in Botswana, with a special emphasis on export-oriented manufacturing industries. Through its One Stop Service Centre, BEDIA provides services for investor needs and aftercare. The Centre focuses on enabling investors to secure all clearances and approvals as quickly as possible under one roof.

Investment Climate and Competitive Investment Incentives

Botswana is a free market economy with liberal foreign exchange controls and a liberal private foreign investment incentive scheme that welcomes joint venture operations. There are no restrictions on reinvestments or repatriation of earnings and capital. The government has never nationalised or expropriated any foreign business. Instead, it is pursuing a privatisation strategy that seeks to balance the strengths and limitations of markets and government so as to achieve sustained economic growth.

The country's credibility and credit-worthiness rating by Standard and Poor's and Moody's is higher than any other sub-Saharan African country. It is considered the most transparent country on the African continent, according to Transparency International.

There is a well-developed legal system, based on Common Law, which facilitates business and commercial activities. There are no foreign exchange controls, and profit, dividends and capital can be readily repatriated.

Political Stability, Good Governance and Sound Macro-Economic Policies

Since independence, political stability and sound macro-economic policies have provided the foundation for the country's successes. According to the 2006 Gallup poll, Botswana stands out among many other African nations with regard to the level of investor confidence toward the country's social and political institutions.

Effective Business Infrastructure

The country has a reliable digital telecommunications infrastructure that is spread throughout the country and facilitates efficient business operation. Business conduct is highly computer based and relies on the internet as a business tool, in both the public and private sectors. The Botswana Telecommunications Corporation and other companies offer a range of different technology and business services.

Botswana participates as a shareholder in the undersea fibre optic cables running on the east and west coast of Africa, which will link up to international telecommunications networks. When this network infrastructure is operational, communication (internet and data transmission) will be efficient, fast, reliable and affordable.

THE EDUCATION SECTOR

The policy framework for the implementation of the education sector is based on the National Policy on Education, the Revised National Policy on Education, the new Tertiary Education Policy, the National Vocational Training Policy, the National Credit and Qualification Framework, the Maitlamo ICT Policy, Vision 2016, and the Science and Technology Policy, together with other government policies.

The key objectives of the education sector include the following:

- ten years of universal basic education
- increasing access to senior secondary education
- expanding vocational and technical training
- promoting lifelong learning
- increasing access and equity at tertiary level
- improving access to education services by children with special needs.



The education sector receives the largest share of total government expenditure. Recurrent expenditure on education averaged 28% of the total in the three years to 2009/10. Investment in education continues to be a priority even in the current planning period, NDP 10, in order to achieve the aspirations of Botswana's Vision 2016.

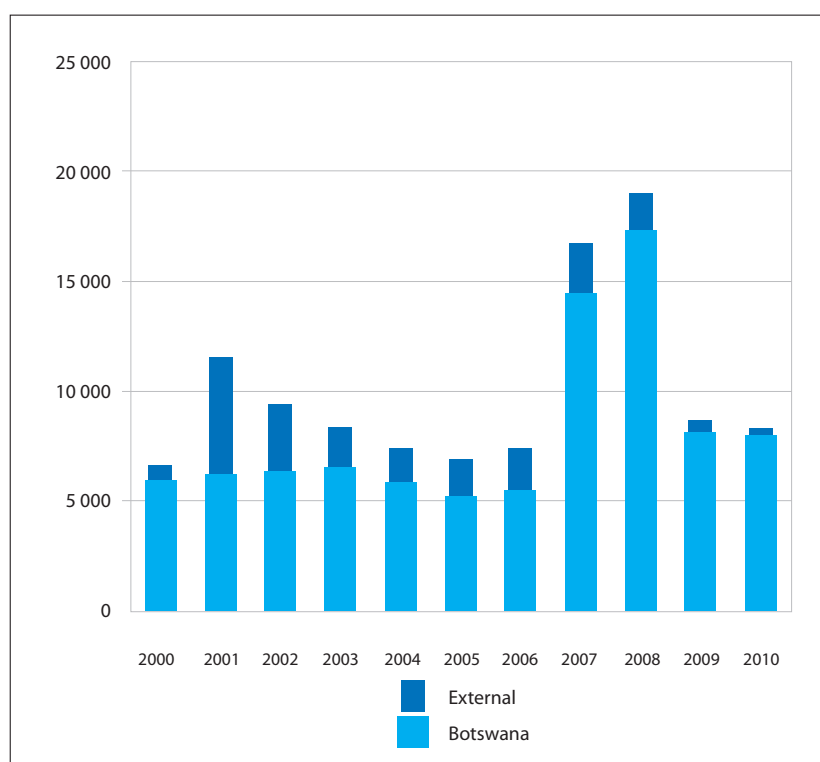
Over the past 10 years, 2000 - 2010, almost 110 500 students were sponsored by government, nearly 20% of whom were placed in foreign institutions. The highest peak was observed during 2007 and 2008 with between

15 000 and 20 000 students placed in both local and foreign institutions. Since 2000 there has been a gradual decline in the number of placements in foreign institutions, resulting in 5% and 4% respectively for 2009 and 2010.

During the same period there was a significant increase in government sponsorship of students to local private institutions. Although the global economic recession has impacted on the government's ability to maintain sponsorship volumes, the government remains committed to fully supporting the education of its citizens.

Student Placement 2000-2010

Destination	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	TOTAL
Botswana	5 984	6 228	6 435	6 583	5 803	5 200	5 455	14 500	17 300	8 141	8 024	89 653
External	727	5 274	3 049	1 797	1 631	1 672	1 946	2 317	1 751	501	315	20 980
Total	6 711	11 502	9 484	8 380	7 434	6 872	7 401	16 817	19 051	8 642	8 339	110 633



Education Landscape in Botswana

The Government emphasises the development of human resources by investing in education and training to raise productivity. Botswana has both private and public institutions of international standard that meet the increasing demands of the rapidly growing economy.

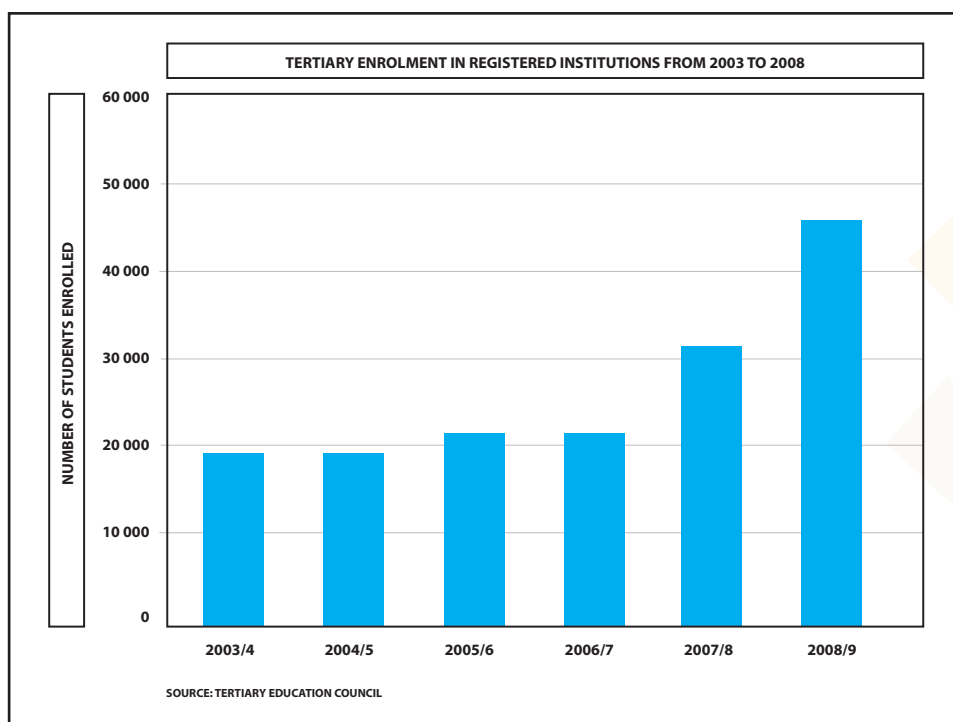
The primary school enrolment in Botswana is consistent with targets set for the Millennium Development Goal of achieving universal primary education by 2015. In 2004 the net enrolment rate for the primary school age group, those between 7 and 13 years, was 98.5%.

The transition rate from primary to junior secondary school is 96.9% and there has been an increase in the junior to senior secondary school transition rate as a result of government's systematic investment in education and expansion of senior secondary schools.

As a result of the government's efforts and overall strategy to ensure an informed and educated nation, student enrolment increased considerably from 20 000 to nearly 50 000 between 2003/04 and 2008/09.

Botswana Education Hub

Botswana provides a unique investment opportunity based on its background and distinctive historical, cultural, geographical, political and economic characteristics. It has a unique investor value proposition to fully leverage and transform itself into an education investment destination of choice, and a centre of excellence in education, by attracting leading tertiary institutions, scholars, researchers and students into the country. The Government of Botswana is fully committed to the establishment of centres of excellence in selected educational opportunities.



CONSERVATION AND ENVIRONMENT INDUSTRY

BUSINESS INDUSTRY

Botswana has a long record of addressing environmental concerns as part of development planning. Sustaining development has been one of the five development planning objectives since Independence in 1966.

Environmental landmarks and achievements have been:

- Signatory to most Southern African Development Community (SADC) and global environmental treaties and conventions.
- Products such as environmental profiles (since 1986), environmental reviews of the last two National Development Plans, 1996 Vision 2016 and natural resource accounts (water, minerals and livestock-rangelands).
- National policy developments through Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA) legislation in 2005, and 2007 Community Based Natural Resource Management (CBNRM) Policy. The umbrella Environmental Management Act is at an advanced stage of development.
- Integrated Management Plans for valuable and sensitive ecosystems such as the Okavango Development Management Plan (2006) and the Makgadikgadi Wetland Area (ongoing).
- Establishment of a separate Ministry for the Environment, Wildlife and Tourism. The Department of Environmental Affairs (DEA) is charged with mainstreaming environment into development planning and coordination of environmental policies.
- Large parts of the country are protected areas (National Parks and Game, about 20%) and more than 34% of the country is preserved for conservation of wildlife. This has helped to conserve wildlife resources and biodiversity.
- Institutional reforms to mainstream environment into development planning, including environmental liaison officers in all ministries and establishment of DEA district offices. In the private sector, most companies have an environmental unit (Safety, Health and Environment).
- A growing number of companies have adopted International Organisation for Standardization (ISO) environmental guidelines.
- Prudent use of revenues from non-renewable resources, notably diamonds.

In brief, the above requires growing capacity and human resources to be able to integrate environmental challenges into private sector projects and public sector projects and programmes.

Regionally, SADC (a market of 258 million people and a GDP of US\$471 billion) strongly promotes mainstreaming of environment in its programme of regional economic integration and growth, and in its programmes on water, agriculture, trans-frontier conservation areas, tourism, forestry and fisheries. Furthermore, most regional conventions require the harmonization of policy and environmental standards among countries, EIAs and SEAs. Extending environmental mainstreaming to all sectors, resources and countries represents a significant regional growth potential. Located in the centre of southern Africa and host to the SADC secretariat, Botswana is well located to meet SADC's training needs in the area of sustainable development, including trans-boundary resource conservation and management (see SADC regional strategic indicative development plan - RSIDP).

Internationally, the trend has been to become proactive rather than to react to environmental challenges through mitigation; i.e. to make interventions early in the policy and project cycles. This is expressed in the UN Millennium Development Goal (MDG) of achieving environmental sustainability (and related goals, such as improving water and sanitation supplies and reducing poverty). Proactive environmental management requires understanding of the close interdependence between environment and development.

EDUCATION INDUSTRY

In the domestic public sector, the University of Botswana (UB), through the Department of Environmental Science, offers courses at undergraduate and postgraduate levels in the area of environmental sciences and management of natural resources. The Department of Environmental Science will be restructured into a School of Environmental Science and Management with the following specializations: Physical Environment, Environmental and Natural Resource Management, Environmental Modelling and Geospatial Information Systems, Sustainable Urban and Rural Development, and Environmental Quality Management and Pollution Control.

The Harry Oppenheimer Okavango Research Centre (HOO-RC) was established to carry out environmental and other research on the Delta. Through HOO-RC, UB introduced an MPhil/PhD programme on Natural Resource Management. This programme is research oriented and does not provide the prerequisite skills for students to understand and address the broad area of sustainable development (e.g. poverty and environment, vulnerabilities, etc.). Plans exist to establish a Faculty of Environmental Sustainabil-

ity in Maun, which will comprise four Schools (School of Cultural and Heritage Studies; School of Applied Ecology; School of Tourism and Hospitality Management; School of Entrepreneurship) and convert the HOORC into an Institute in Natural Resource Management.

It is uncertain if and when the UB plans will materialize. What is certain is that these plans will not fill the niche of the proposed opportunity here. However, the opportunity could in future become one of the schools under the Faculty of Environmental Sustainability or under the revamped School of Environmental Science and Management. The Faculty of Social Sciences (at UB) has introduced a Masters in Development Practice (MDP), which starts in September 2010 and allows students to choose courses from a wide range of disciplines.

The existing private tertiary institutions in Botswana are not active in the area of environment and development, with the exception of Ba Isago University College (associated with University of South Africa, UNISA). Through UNISA, environmental management courses are available at undergraduate (BSc & BA), honours (BSc & BA), Masters (MSc & MA) and Doctorate levels. In the region, several initiatives deal with aspects of sustainable development, mostly for specific resources.

WaterNet offers a regional Masters programme in sustainable development of water resources (IWRM). WaterNet is an associate programme of the SADC Water Division (PCN 23) formed in 2000, whose broad objective is to build and strengthen regional capacity for IWRM through education, research and training. The MSc programme runs for 18 months at the universities of Dar es Salaam and Zimbabwe with an annual admission of up to thirty students from the SADC region. This inter- and multi-disciplinary programme is jointly facilitated by various universities in the region.

With the support of United Nations Environment Programme (UNEP) and SADC's 'Education for Sustainable Development', Rhodes University Environmental Sustainability Unit produced a toolkit for 'Mainstreaming Environment and Sustainability in Africa (MESA),' Universities Partnership. The SADC Regional Strategic Indicative Development Plan notes that trans-boundary conservation and resource management initiatives pose a growing challenge that needs to be addressed.

The Sustainability Institute, in association with the University of Stellenbosch in South Africa, offers short courses, an honours degree and an MPhil in Sustainable Development. The South African Council for Industrial and Scientific Research (CSIR) addresses 'Natural Resources and the Environment', but it is largely a research institute.

Several universities, such as the University of Pretoria and the University of Namibia, offer courses in environmental management but they do not offer the multi-disciplinary sustainable programmes.

The United Nations University Institute for Natural Resources in Africa (UNU-INRA) is hosted by the University of Ghana in Accra, Ghana. UNU-INRA currently has four Operating Units, focusing on:

- a) Mineral Resources (University of Zambia, Lusaka, Zambia);
- b) Coastal and Marine Resources (Henties Bay Center, University of Namibia, Windhoek, Namibia);
- c) Application of Computer Technology to the Management of Natural Resources (University of Yaoundé I, Yaoundé, Cameroun); and
- d) Socio-Economic Aspects of the Management of Natural Resources (CIRES), University of Cocody, Abidjan, Côte d'Ivoire.

REGULATORY REQUIREMENTS

The SADC Protocol on Education and Training provides for cooperation in higher education and training (art. 7), and below are some provisions that are relevant to the Profiles:

- Member States agree to recommend to universities and other tertiary institutions in their countries to reserve at least 5% of admission for students from SADC nations other than their own.
- Member States agree that within ten years from the date of entry into force of this Protocol, they shall treat students from SADC countries as home students for purposes of fees and accommodation.

Furthermore, most countries within SADC and most donors have EIA & SEA regulations and procedures in place.

OPPORTUNITY

CONCEPT AND OBJECTIVE

The ongoing 'wave of double digit economic growth' in Asia has generated significant environmental problems nationally and globally because environmental concerns were not adequately addressed in time. Africa needs to learn from this, and the imminent African economic growth wave requires that the environment be mainstreamed into development from the outset.



Botswana has experienced such growth in the past, but has largely managed to avoid severe environmental problems through pursuit of sustainable development.

The country should share its experiences with other African countries. The concept is to utilize Botswana's considerable experience and expertise in sustainable development and integrated natural resource management to establish a Centre for Advancing Sustainable Development (CASD). This investment opportunity aims to provide a means for Botswana and other (southern) African countries to avoid, resolve and/or mitigate environmental problems associated with (rapid) growth.

The growing need for training in the field of sustainable development and an aggressive marketing strategy make development of CASD a feasible initiative that will target the expanding national and regional market.

The concept is based on the following:

- Botswana's record in implementing sustainable development (SD).
- The growing need for human resources in this area within the country and southern Africa.
- The limited supply of education at postgraduate level in this area.
- The need to build a track record in research and advancement of theoretical concepts and models related to sustainable development.

The overall objective is the establishment of the Centre for Advancing Sustainable Development (CASD).

The specific educational objectives are:

- To develop human resources in Integrated Environmental Management (IEM).
- To promote the applications of IEM and sustainable development within the SADC region.
- To advance concepts and models of sustainable development based on southern African experiences and perspectives.

PRODUCT DESCRIPTION

The Centre will offer a two-year course leading to a Masters in Sustainable Development. This course targets young career professionals in the public and private sector who need to practice IEM and sustainable development.

CASD will offer two short courses for professionals in employment, to upgrade skills and to raise their understanding of sustainable development (SD) and IEM:

- A one-week course in IEM and SD for decision makers and senior managers in the private and public sectors. The aim is to improve their understanding

of the concepts of IEM and SD and the importance of these for their institutions.

- A six-week course in IEM and SD for mid-level environmental managers, development planners and resource engineers. The aim is to equip participants with the tools to introduce and implement IEA and SD in their organizations.

The courses will be closely linked with fieldwork and advanced research in the area of sustainable development. Development of new integrated resource management concepts and models towards sustainable development will make Botswana a recognised lead country in advanced natural resource management (theory and practice!).

The Masters and short courses will cover the following topics and modules:

1. Advanced theories and concepts in integrated natural resource management (e.g. sustainable development, ecological footprint, ecosystem approaches).
2. Modelling tools of IEM and SD.
3. Applications in advanced integrated natural resource management:
 - a. Water: integrated water resource management and water demand management
 - b. Energy: integrated energy management (renewable and non-renewable) and energy demand management
 - c. Wildlife: integrated wildlife management (e.g. adaptive management, participatory approaches)
 - d. Sustainability and the mining sector (e.g. use of mineral revenues for sustainable development and economic diversification).
4. Research projects and attachments to companies, communities and government departments.

This structure provides for the future establishment of separate new opportunities in the areas of water, renewable energy, wildlife and EIA/SEA, once these areas have sufficiently developed and matured (see Appendix 1 for a skeleton description of each).

The University of Botswana is well placed to host this opportunity. Collaboration between the Gaborone main campus Department of Environmental Science (DES) and the Maun Campus (HOORC) will be established. If the Faculty of Environmental Sustainability is established, it could become a department/school within this Faculty (based in Maun). If the DES redesigned its current Masters programme along the above lines, the CASD would focus on the short courses and could also service certain DES Masters courses.

PARTNERSHIPS

Prospective investors need to develop partnerships to mobilise and access the required educational resources and additional funds (if necessary). The institutions mentioned in this profile have shown interest in this particular opportunity but further discussions are necessary if the opportunity is to be implemented. Funding is anticipated from private and public sectors and from national and international sources. These include companies, universities, bilateral and multilateral donors, and non-government organisations.

Education and research efforts could involve partnerships with regional and international partners. The University of Botswana needs to be engaged to work out details and modalities of collaboration.

VALUE PROPOSITION

- Botswana would contribute its knowledge and experience with IEM and SD to the southern African region.
- Botswana hosts the SADC secretariat, and is well placed to assist SADC with mainstreaming environment.
- Environmental mainstreaming is a national and regional growth market that is short of skills in the private and public sector.
- The 2012 UN Assessment of Progress with the Implementation of Sustainable Development will add significant value to the proposed product.

STUDENT MARKET

The local and regional market for education in IEM and SD is expected to grow significantly, for several reasons:

- Growing interest in mainstreaming environment and development planning.
- The drive to meet the Millennium Development Goals and the 2012 UN World Summit on Sustainable Development 2.
- Growing global environmental demands on governments and enterprises from international and regional conventions (e.g. carbon targets and markets).
- At sectoral levels, growing interest in IEM and SD applications for the water and energy sectors (e.g. IWRM & IERM and WDM & EDM).
- Growing commercial need for an interest in efficient resource use and developing a 'green corporate profile'.

The target groups would include central government (environmental officers, planning officers and economic planners as well as senior government officials in most Minis-

tries), environmental officers and planning units in large enterprises, local government (e.g. district development and resource planners) and parastatals in the water, energy and wildlife and tourism sectors. The training needs and market have been roughly estimated for Botswana, southern Africa and elsewhere based on the following assumptions:

Botswana:

- Environmental liaison officers (government) and Safety, Health and Environment SHE officers (large enterprises) need a Masters degree in SD & IEM.
- Planning officers, one senior government staff member for each Ministry, environmental planners and technical resource staff (e.g. environmental engineers) need the short course.

Region:

- The market is the same in countries of similar size to Botswana (population and economy); the market share could be 25%.
- The market is a third in smaller countries (e.g. Swaziland) with a Botswana market share of 25%.
- The market is 50% larger in larger countries such as DRC with a 25% Botswana market share.
- The South African market is 5 times as large as in Botswana with a 10% Botswana market share.

Elsewhere:

- The market would be around 10% of the regional market.

The market for short courses is estimated to be around 250 to 350 participants per annum and some 20 to 25 Masters students. The local market would contribute about a third and the regional and international market about two thirds. The potential market is much bigger, but the CASD needs to develop the market and increase its market share.

COST / BENEFIT

All monetary values in this section are presented in Botswana Pula (BWP) with a convertible rate of 1BWP = 0.15USD (as of November 2010).

As with most investment opportunities, it is expected to take a few years before the opportunity will yield positive financial returns. Recurrent expenditures would be recovered from the start. The potential to generate overall positive financial returns also exists. Financial returns will be enhanced by two factors:



- Marketing, to ensure that enrolment targets are met and that enrolment increases over time.
- Cost control by, for example, sharing facilities available at existing educational institutions.

Option 1: This assumes the use of existing facilities

Capital Investment (CI) - Initial Investment	P1 875 000
Operational Cost (OC) per year	P4 128 000
Revenue per year	P5 400 000
NPV over a 10-year period	P5 400 809
IRR over a 10-year period	67%
NPV over a 15-year period	P7 090 848
IRR over a 15-year period	68%

POTENTIAL COSTS – ASSUMPTIONS:

New Facility					
Description	Qty	Floor Area	Total Area	Cost/Floor Area (Pula)	Amount (Pula)
Land	1	10 000	10 000	150	1 500 000
Administration Block	1	600	600	8 000	4 800 000
Teaching Classroom		200	0	5 000	0
Auditorium	1	200	200	5 000	1 000 000
Computer Room	2	200	400	5 000	2 000 000
Library	1	400	400	8 000	3 200 000
Conference Facility		1 000	0	7 500	0
Cafeteria & Dining		1 000	0	5 000	0
Sub Total			1 600		12 500 000
Add 10% Contingency					1 250 000
Sub Total					13 750 000
Add 25% for Furniture & Equipment					3 437 500
Sub Total					17 187 500
Add 12% VAT					2 062 500
Total Estimated Costs					19 250 000
Existing Facility					
Initial Capital Costs for re-furbishment and/or partitions at 15% of infrastructural cost					1 875 000
Operating Cost					
Rental per year for Existing Facility at P90/m2					1 728 000
Other Costs (Utilities, salaries etc)					2 400 000
Total Operating Costs					4 128 000

Capital requirements are estimated to about P19 million for a completely new facility, but it is better to use existing facilities, in which case the only initial investment will be in furniture and equipment for about P1.9 million.

Salaries and other recurrent expenditures are estimated to be about P2.4 million. This includes a full time director and administrative officer, an SD expert for six months, and three module experts for eight months each.

Annual revenues would range from just under P4 million to P5.4 million. Revenues largely depend on the intake of Masters students and short course participants. If one assumes an annual intake of 210 participants for short courses and 20 Masters students, the revenues are P5.4 million (assuming fees of P20 000 and P50 000 for short courses and Masters, respectively).

There are also important intangible benefits, such as:

- Environmental profiling of investors, as well as their social responsibility profile.
- Access to a bigger pool of human resources for companies and government with positive development and corporate impacts.

MARKETING STRATEGY

Botswana should profile itself as a green country, and the "Green Diamond in Africa and the World" (similar to Costa Rica). A quick review of educational opportunities has shown that there are few similar initiatives in the region.

The concept of sustainable development has been around for over twenty years, and has seen many related concepts emerging in its wake (e.g. integrated water resource management, ecosystems approach, water and energy demand management, ecological footprints, 'virtual' water). The agenda was set out in 1992 (Agenda 21) and reviewed in 2002 at the World Summit on Sustainable Development (WSSD) in Johannesburg. Progress will be evaluated in 2012, and this event is likely to raise interest in sustainable development. The market is therefore likely to grow, and the product should be on the market by 2012 and showcased by the Botswana delegation to the WSSD2.

As with many sectors of the economy in Botswana, local and central government would provide the bulk of the market, particularly for short courses that empower managers with multi-dimensional skills and knowledge to tackle poverty, reduce communities' vulnerability to natural disasters, reduce diseases and foster sustainable livelihoods. The National Development Plan 10 (NDP 10) emphasizes mainstreaming of environmental issues into development projects; this has created the need to train planners in sustainable development. In the SADC region and Africa, the need to achieve MDGs has led to increased demand for training in sustainable development. The proposed CASD therefore needs a dynamic and aggressive marketing strategy to attract students and to be competitive.

There should be development of clear mission statements and services offered by the proposed CASD, highlighting its strong points. This information can be disseminated through flyers to be sent to the target organizations. It is important to draw attention to the areas of expertise that could benefit from the training programmes offered.

The internet and websites have been important vehicles through which organizations market their services and products. An attractive and well-maintained website with up-to-date information is an important medium for selling the products at local, regional and international levels.

Botswana has ambassadors and high commissioners in different countries, and their offices could be used to market the CASD outside Botswana. The CASD should maximize the benefit of Botswana's hosting of the SADC secretariat, and the accessibility afforded to different countries by the central location of Botswana in the SADC region. The upgrading of Sir Seretse Khama International Airport and improved air links should enhance access to Botswana. In addition, the regional and international meetings hosted by Botswana provide an opportunity to sell the CASD and the institutions in Botswana and the SADC region that is seldom exploited.

The other important strategy to market the CASD is to identify and affiliate to internationally reputable institutions in the field of sustainable development, such as the United Nations University and the University of Leeds. This will also accelerate the institution's accreditation.



OTHER OPPORTUNITIES

Investors interested in any of the opportunities summarised below should contact the Education Hub for further discussions. The main opportunity and its modules has been developed in such a way that it can produce, in time, 'offspring' in the form of these other opportunities.

Establishment of a Centre for Advancing Integrated Water Resource Management (IWRM) & Water Demand Management (WDM) - (CAIW)

As SADC has embraced IWRM and WDM, with many SADC countries including Botswana preparing IWRM and Water Efficiency plans, this is a future growth market: most water sector professionals are educated as business managers, engineers, economists, planners, etc. and many lack the skills of IWRM and WDM. The opportunity would be based on the growing experiences in Botswana with IWRM and WDM, such as storm water dams, re-use and recycling of waste water, and desalination. The opportunity will emphasize the practical tools and implementation of IWRM and WDM (based on the Global Water Partnership toolbox, for example).

WaterNet is currently offering a Masters programme in IWRM, and organizes short courses in collaboration with Cap-Net and Global Water Partnership. The opportunity could be realized through collaboration with WaterNet, and could explore possible collaborative partners such as the International Water Management Institute (IWMI).

Establishment of a Centre for Advancing EIA & SEA (CAEA)

The EIA & SEA market is a growth market, since SADC and most member states have EIA/SEA requirements and legislation in place. Moreover, international financial institutions require high-quality EIAs before financing projects.

Many EIA training opportunities (academic and short courses) already exist in the region at universities and at the Southern African Institute for Environmental Assessment (SAIEA). The opportunity therefore requires 'extras' in order to become viable and to serve regional and national markets.

Establishment of a Centre for Wildlife Management and CBNRM

Botswana is renowned for its wildlife resources and management thereof. The Wildlife Training Centre (WTC) in Maun has offered certificate and diploma training courses for guides, hunters and community trust members for over a decade. There is an opportunity to expand education to a higher and broader southern African level.

Establishment of a Centre for Advancing Solar Power (CASP)

The opportunity builds on Botswana's growing expertise in solar power and bio energy. The country has a local solar power industry and a growing number of solar power applications. BPC has embarked on several renewable energy initiatives. In 2000 a Japanese organisation, JIKA, piloted the use of renewable energy in Kudumatse, Motlhabane and Lerolwana for lighting and powering of small electric appliances. BPC has since established the Renewable Energy Botswana, which entails the sale of various energy-saving products such as rechargeable lanterns, energy-efficient stoves and hot bags to keep food warm. The other project, at the feasibility stage, is the development of a 1MW solar power station. Moreover, Botswana Technology Centre (BOTEC) and Rural Industries Promotions Company (RIPCO) have both worked on solar power and bio energy applications.

The local and regional market for solar power and bio energy is growing because of the dependency on coal resources with a large carbon footprint and the risks associated with nuclear power. Solar power can be used to offset these impacts and/or to attract international funding. The opportunity would be developed in consultation with the Southern African Alternative Energy Association (SAAEA).

ADDITIONAL SOURCES OF FURTHER INFORMATION

Botswana embassies and missions abroad:

Botswana Government website
 General: www.gov.bw
 Environment: www.envirobotswana.gov.bw
 Statistics: www.cso.gov.bw
 Legislation: www.laws.gov.bw
 BEDIA: www.bedia.org
 SADC: www.sadc.int

Water resources
www.waternetonline.org
www.cap-net.org
www.gwpsa.org

EIA-SEA-Energy
www.saiea.org



