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Aid and the environment: The case of Botswana

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WIDER Working Paper 2014/007

Aid and the environment

The case of Botswana

James S. Juana*

January 2014

Abstract: Botswana has serious environmental problems which, if not addressed, will undermine the attainment of sustainable economic development. This study attempts to determine what aid flows have actually been doing with regard to the environment in Botswana. The results show that although both the national government of Botswana and top aid donors have concerns for environmental sustainability in sustainable economic development, the actual amount allocated to the sector is an insignificant proportion of the overall development budget. This will undermine national and global objectives of attaining lasting environmental and economic development. The donor agencies interviewed during the course of this study suggested that the government of Botswana needs to prioritize the environmental sector and coordinate the donor aid disbursed to the sector.

Keywords: aid flow, development expenditure, environmental issues, sustainable development
JEL classification: H5, Q01, Q2, Q5

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Acronyms

Given at the end of the study.

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1 Introduction

At independence in 1966, Botswana was among the poorest countries in the world, with a GDP of about US$91 per capita (Mogotsi 2002). With the discovery of diamonds in 1976 and the implementation of sound macroeconomic policies, coupled with good governance, the country experienced some of the world's highest growth rates between 1966 and 2004. Hence, Botswana was transformed from being a least-developed country to a middle-income country in Africa (Anderson 2005). However, the rate of growth fell in the late 2000s because of the global economic crisis, and the drop in global diamond prices, although some recovery was evident in 2010 (GoB 2012). At independence, Botswana, like all other countries in sub-Sahara Africa (SSA) relied mostly on agriculture and foreign aid to meet its development goals. Because of its successful economic performance, most bilateral and multilateral aid donor agencies withdrew from Botswana on the perception that the country had graduated from its 'aid dependency' state (Anderson 2005). However, with the country's upsurge in HIV/AIDS, most foreign donors redirected their commitment to combat the pandemic, and currently, about two-thirds of the disbursed foreign aid is allocated to HIV/AIDS activities. But the country still needs to focus on other interventions that have environmental consequences.

Despite the remarkable economic growth, Botswana continues to have a high poverty rate, as recorded in the country's *Vision 2016* households opinion survey (CSO 2010). The majority of the poor live in rural areas and depend on natural resources for their livelihoods. Heavy reliance on the country's natural resources for economic growth and rural livelihoods has adverse consequences for the environment. The government has since formulated a long-term development strategy code-named *Vision 2016* aimed at sustaining the current rate of economic growth, reducing or eradicating poverty, and maintaining a sustainable environment. These aims are encapsulated in the seven pillars of *Vision 2016* (GoB 2009).

Because of the increases in population, in the rate of urbanization, in agricultural, industrial and mining activities, coupled with climate change, Botswana faces a host of environmental problems. These include water scarcity and pollution, land degradation, biodiversity loss, deforestation, desertification, climate change and waste generation and poor disposal methods. To link the promising rate of economic growth with a conducive and sustainable environment, the government of Botswana has legislated environmental acts and has signed a number of regional, continental and global environmental agreements, conventions and protocols. These include, but are not limited to, the Convention on Biodiversity, Bio Safety Protocol, membership in International Union for Conservation of Nature (IUCN), Ramsar, UN Convention to Combat Desertification, Basel Convention, Stockholm Convention and African Ministerial Conference on the Environment (DEA 2008).

Environmental degradation and the glaring environmental problems facing the country call for an assessment to be made of the interventions that foreign donors and the government of Botswana are undertaking to address these concerns. Therefore, this country case-study is designed to evaluate the relationship between aid and environment in Botswana. Specifically, the study:

- analyses the country's sectoral development expenditure in the last decade;
- examines the various foreign donor interventions;
- identifies and briefly discusses the top-most aid donors in the country;

estimates the amount of aid and government development expenditure allocated to environmental interventions; and

reviews the perceptions of foreign donor agencies on environmental issues in Botswana.

The next section discusses the main environmental problems in Botswana. Section 3 presents an analysis of the country's development expenditure in the last decade, while section 4 examines the aid donors and their interventions in the country. Section 5 reviews the perceptions of foreign aid with regard to the environment and development, and section 6 provides a summary of the findings and conclusions.

2 Key environmental problems in Botswana

Sustainable economic growth and development in Botswana is faced with various environmental challenges, including water scarcity and water pollution, land degradation, biodiversity loss, deforestation, improper disposal of wastes and climate change. Each of these is elaborated in the subsections below.

2.1 Water scarcity and water pollution

Botswana is a water-stressed country, with an average annual precipitation rate of 416 mm/year, ranging from 650 mm/year in the northwest to 250 mm/year in the southwest. Of the total internal renewable water resources of 2.4 km^3/year, internally-produced surface water accounts for 0.8 km^3, while groundwater accounts for 1.7km^3/year, with an overlap of 0.1 km^3/year (FAO 2005). Apart from the perennial rivers and wetlands in the north, and the overutilized Limpopo River and its tributaries in the east, Botswana lacks sufficient surface water for both sustainable socioeconomic and environmental development. Availability of water is influenced by climate, and water availability and distribution in Botswana are affected by low and variable rainfall that leads to limited surface runoff and ground water recharge, and high evaporation rates (Du Plessis and Rowntree 2003). The country has five major drainage basins:

the Limpopo Basin covering about 14 per cent of the country in the east;

the Okavango Delta covering 9 per cent of Botswana's northeast;

the Orange Basin, about 12 per cent of the southern part of country;

the Zambezi Basin, which occupies 2 per cent of the land mass in the north; and

the South Interior, which occupies about 63 per cent of the country, and includes the Kalahari Desert and the Makgadikgadi Pans (WRI 2000).

Human settlements are consuming an ever-increasing share of water. In 2000, total water withdrawals increased to 194 million cubic meters, of which about 41 per cent was used for irrigation, forestry, livestock and wildlife. About the same percentage was utilized by households and small industries, and 18 per cent by mining and energy generation (Du Plessis and Rowntree 2003). Since usage is still growing, the domestic share of water consumption is assumed to have increased further.

The need for sustainable economic growth—coupled with increased domestic water use, urbanization, and the concerns about environmental sustainability—has increased the competition for productive and non-productive uses of water. The problem of water scarcity is expected to be exacerbated by the impact of climate change. This will lead to expanding water needs for livestock and crops, as well as increased evaporation of surface water due to rising

temperatures. It is also predicted that rainfall will be erratic and unevenly distributed, thus reducing surface water availability and adding to the heavy dependence on the country's groundwater sources (Du Plessis and Rowntree 2003). Temperatures are projected to rise between 1 and 3 degrees by 2050, resulting in higher potential evapotranspiration rates. Future trends in rainfall are uncertain, but most general circulation models predict a significant decrease in rainfall. Surface water scarcity in Botswana implies heavy reliance on groundwater resources for the socioeconomic development of the country. The main environmental problem associated with increased dependence on groundwater is water pollution due to leakage from septic tanks and pit latrines, which also constitutes a health hazard (SIDA 2008). The problem of groundwater pollution is compounded by the discharge of high concentrations of various metals from the country's mining operations (SIDA 2008).

To respond to the issue of water scarcity and water pollution, the government of Botswana (GoB) has outlined strategies in the tenth national development plan (NDP 10) under three major heading (GoB 2009):

Providing clean, reliable and affordable water by 2016. The government plans to increase the production of water tenfold (for domestic, institutional, industrial, commercial agricultural and wildlife uses) through the construction of dams and water pipes to augment supply to the rural areas between 2009 and 2016. The costs of these projects are estimated at BWP5.23 billion (GoB 2009);

Launching a major village water supply and development project through the extension and rehabilitation of existing networks to increase efficiency and coverage. The project has an estimated cost of BWP2.58 billion;

Establishing regular water quality monitoring and testing of dams and well fields, and developing wastewater treatment infrastructure to increase portable water. This project is estimated to cost BWP75 million.

In addition, due to increased levels of underground water pollution, the government initiated action to intensify an underground water monitoring programme (GoB 2009). Pit latrines were replaced by a nationwide installation of ventilated improved pit toilets (VIP) which are considered to be more environmentally friendly. More boreholes have been dug and maintained, particularly in parts of the country not covered by the government's pipe-borne water systems (GoB 2009).

2.2 Land degradation

Botswana is estimated to have a land area of 582,000 km^2 (SOER 2002). Only about 29,100 km^2 of this huge landscape are cultivable, of which irrigated area covers 1300 km^2. The country has three distinguishable agro-ecological zones:

The savannah grasslands interspersed with woodland. Located in the centre and the west, this zone is predominantly covered by the Kalahari Desert. With a predominantly sandy soil, this zone is not suitable for cultivation, but supports considerable numbers of livestock and wildlife;

The savannah grasslands and woodlands with fewer forested areas. This zone, in the eastern part of the country, has a less harsh climate and more fertile soil than the Kalahari, with rainfall in excess of 400 mm (average in the country); and

The Okavango Delta in the northwest has vast areas of open lush green wetlands and water, with abundance of wildlife (FAO 2005).

Zone II (the savannah grasslands and woodlands) is challenged by the growing human population with increased livestock, overgrazing, inappropriate farming techniques and mining activities, all of which contribute to land degradation (SIDA 2008).

According to PEM (2011), 69 per cent of the land in Botswana is degraded as a result of deforestation, overgrazing and erosion. Land degradation results from rangeland pasture depletion, growing pressures on water resources, pollution in rural areas and inappropriate land use patterns (Acquah 2004). The country is highly reliant on the mining sector for its economic growth: these operations produce high emission levels, especially sulphur dioxide. Mining sites that have not been rehabilitated constitute a serious threat to the environment and to the health of the inhabitants.

2.3 Biodiversity loss

Botswana has a wide diversity of wildlife (flora and fauna) including some globally endangered species. However, the country has witnessed a decline in their numbers over the years due to illegal hunting, drought and habitat destruction (SOER 2002). The fact that the population of Botswana has more than doubled between 1971 and 2011 has had an impact on biodiversity through habitat modification for crop production, grazing land and urban development (SOER 2002). Major threats to biodiversity include rangeland degradation, inappropriate harvesting methods, habitat destruction, climate change, increased elephant population, fuelwood collection, inadequate management of wastes in rural areas, and the lack of information on hazardous wastes. Biotechnology has become another threat to biodiversity, as it has resulted in the creation of super weeds through the transfer of herbicide tolerance to weeds.

2.4 Climate change

Climate change in Botswana is a major environmental issue because of the country's arid and semi-arid conditions and its delicate ecosystems. Significant change in climatic conditions affects vegetation and rangeland cover, the composition and distribution of various species as well as human health. As a result, the country has experienced repeated droughts which have adversely affected its food and agricultural situation as well as the rural economy (GoB 2009).

Climate change is likely to have an adverse impact on the country's ecosystems, especially the Okavango Delta, with a probable negative effect on tourism, thus impacting on the livelihood opportunities of the people residing in the basin. Climate change impacts are expected to increase over the years to come, which will constitute a threat to development, and diminish the chances of achieving the MDGs. These predictions, projected at a rate of warming of about 0.27°C per decade, apply to many countries in southern Africa. A 10 to 20 per cent decrease in precipitation is projected for Botswana (GoB and UNDP 2004) implying that livestock production will be costlier, decreasing the income of pastoral farmers because of livestock deaths and weight loss. Climate change will also exacerbate the problem of water scarcity, increasing its demand for crops and livestocks (SOER 2002). Botswana has already experienced an increased frequency of droughts and prolonged dry periods which affect crop yields, livestock production, and human welfare.

2.5 Deforestation

Fuelwood from forests and woodlands accounts for 70 per cent of net energy supply in Botswana. This high reliance on wood for fuel has resulted in a substantial depletion around the country's major settlements. Overexploitation of forests and range resources was cited as a major challenge in the NDP 9, and this was attributed mainly to the commercialization of the resources, expansion of agricultural activities, uncontrolled land/bush fires and urbanization (GoB 2009).

2.6 Improper waste management and pollution

Improper management of natural resources and waste disposal are another environmental problem that poses a major challenge in Botswana. Main types of wastes include oil, plastic, paper, glass, packaging waste, medical/clinical waste, metal waste, battery and tyre waste (SOER 2002), and it is difficult to estimate the volume of waste generated in the country. Poor waste management and disposal increases pollution of the environment, posing a health hazard to the whole population. This is a key area of importance for the government, as only about 40 per cent of the people during the period covered by NDP 9 had access to adequate sanitation facilities (GoB 2009).

Conversely, an initiative was introduced during the NDP 9 to use treated waste water to support irrigation in the Glen Valley area (GoB 2009). This not only mitigated the problem of waste water disposal, but also boosted agricultural production in the region.

3 Analysis of Botswana's ten-year development expenditure

As stated in the introduction, after foreign aid was discontinued Botswana funded most of its development expenditures. Table 1 shows the country's sectoral development expenditure between 2001/2 and 2010/1, and the corresponding percentages.

As is evident from the table, over the past ten years the government has prioritized such sectors as general services and defence; electricity and water supply; health; education; housing, urban and regional development and roads. Total development expenditure in Botswana between 2001 and 2011 was BWP 68.36 billion, of which about 16.7 per cent was spent on general services and defence. This is followed by electricity and water supply, which accounts for about 15.4 per cent of the development expenditure; health (12.9 per cent), education (12.3 per cent); housing and regional development (12.1 per cent) and roads (10 per cent).

The general services and defence sector, which over the years has had the largest share of Botswana's development expenditure, is under the ministry of the state president. This ministry is responsible for three major projects; the HIV/AIDS programme, the Botswana Defence Force (BDF) and Botswana Police Services (GoB 2006). Although the HIV/AIDS programme has always assumed a larger share of the budget, the sector recorded its highest peak during the 2004/5 and 2006/7 financial years (FY), as the government redoubled its efforts to fight the pandemic. The extra development expenditure was directed towards increasing the number of voluntary counselling and testing centres across the country as well as the piloting of a telemedicine and district health information system to improve delivery of health services. In the 2007/8 FY, the expenditure dropped from 21.9 per cent to 17.7 per cent mainly due to the decline in the HIV prevalence and the establishment of HIV/AIDS testing centres.

Table 1: Development expenditure of the government of Botswana, 2001/2-2010/1 (millions of Botswana Pula)

Sector	2001/2	2002/3	2003/4	2004/5	2005/6	2006/7	2007/8	2008/9	2009/10	2010/1	Total	%
					Panel A							
General services including defence	759.8	752.4	794.6	831.1	604.3	888.8	1185.8	1794.2	2130.6	1661.1	11402.7	16.7
Education	551.1	473.3	574.2	468.2	396.7	455.0	1073.6	930.0	1825.3	1654.3	8401.7	12.3
Health	129.7	356.6	808.2	1057.1	1096.8	924.1	1127.0	1153.3	1350.8	842.5	8846.1	12.9
Food and social welfare programmes	99.7	194.9	166.2	62.4	136.1	46.0	246.3	311.4	337.9	290.8	1891.7	2.8
Housing, urban & regional development	359.8	681.0	430.5	167.3	310.0	418.7	834.2	1698.5	2083.0	1319.2	8302.2	12.1
Other community and social services	122.5	76.0	60.2	91.3	58.4	42.1	100.0	411.1	341.6	236.9	1540.1	2.3
Agriculture, forestry and fishing	96.1	146.0	141.5	47.6	271.2	103.0	142.6	688.5	347.5	287.0	2271.0	3.3
Mining	335.9	22.3	30.2	43.7	34.3	1.9	22.1	35.2	47.5	18.0	591.1	0.9
Electricity and water supply	453.6	616.0	564.4	686.3	635.3	532.6	526.2	2456.0	1465.2	2565.2	10500.8	15.4
Roads	526.0	480.0	336.4	340.1	135.3	447.1	551.2	831.0	1630.8	1552.2	6830.1	10.0
Others	258.1	401.2	350.2	115.0	105.0	195.9	738.7	1149.2	1445.7	944.6	5703.6	8.3
FAP grants	150.0	10.0									160.0	0.2
Environment			320.4	304.6	43.8	53.7	156.9	523.1	508.4	12.5	1923.4	2.8
Total	3842.3	4209.7	4577.0	4214.7	3827.2	4108.9	6704.6	11981.5	13514.3	11384.3	68364.5	100.0

Panel B- percentages

Sector	2001/2	2002/3	2003/4	2004/5	2005/6	2006/7	2007/8	2008/9	2009/10	2010/1	Total
General Services including defence	19.8	17.9	17.4	19.7	15.8	21.6	17.7	15.0	15.8	14.6	16.7
Education	14.3	11.2	12.5	11.1	10.4	11.1	16.0	7.8	13.5	14.5	12.3
Health	3.4	8.5	17.7	25.1	28.7	22.5	16.8	9.6	10.0	7.4	12.9
Food and social welfare programmes	2.6	4.6	3.6	1.5	3.6	1.1	3.7	2.6	2.5	2.6	2.8
Housing, urban & regional development	9.4	16.2	9.4	4.0	8.1	10.2	12.4	14.2	15.4	11.6	12.1
Other community and social services	3.2	1.8	1.3	2.2	1.5	1.0	1.5	3.4	2.5	2.1	2.3
Agriculture, forestry and fishing	2.5	3.5	3.1	1.1	7.1	2.5	2.1	5.7	2.6	2.5	3.3
Mining	8.7	0.5	0.7	1.0	0.9	0.0	0.3	0.3	0.4	0.2	0.9
Electricity and water supply	11.8	14.6	12.3	16.3	16.6	13.0	7.8	20.5	10.8	22.5	15.4
Roads	13.7	11.4	7.3	8.1	3.5	10.9	8.2	6.9	12.1	13.6	10.0
Others	6.7	9.5	7.7	2.7	2.7	4.8	11.0	9.6	10.7	8.3	8.3
FAP grants	3.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Environment	0.0	0.0	7.0	7.2	1.1	1.3	2.3	4.4	3.8	0.1	2.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Extracted from Statistics Botswana (2012).

From the mid-2000s, Botswana's emphasis has been on economic diversification and combating the HIV/AIDS pandemic. As a result, the main focus in NDP 9 and NDP 10 was on infrastructure development and improvement of the business climate for private sector investment (GoB 2009). To stimulate private sector development, there is a need for public investment in infrastructure so as to attract either domestic or foreign private investment. In this regard, the government of Botswana prioritized investment in roads infrastructure, electricity and water supply, and housing, urban and rural development.

The Financial Assistant Programme (FAP) grant was established in the late 1990s to encourage diversification of the economy away from the traditional mining and beef sectors as well as to create employment for Batswana. By 2002/3 the FAP had failed due to the mismanagement of funds within projects financed under the programme (Mandisa and Assefa 2011). However, the grant was replaced by the Citizen Entrepreneurial Development Agency (CEDA) in 2001 to provide financial and technical support for business development.

As shown in Panel B of Table 1, the health sector is among the sectors that ranked high in total development expenditures. This was attributed to the sector's major objectives of eradicating such health threats as HIV, malaria and tuberculosis which continued to adversely affect the productivity of the people (GoB 2006). It was vital for the government to undertake major efforts to improve the healthcare infrastructure for better quality services. Thus during the 2004/5 FY the government constructed or upgraded five hospitals.[1] As a result, development expenditure increased from 17.7 per cent in 2003/4 to 25.1 per cent in 2004/5 FY.

In addition to improving the healthcare infrastructure, the government initiated three major policies and strategies that were aimed at safeguarding human health and protecting the environment from environmental hazards (GoB 2004). These included the amendment of the Public Health Act of 1971 to align it with current environmental and developmental changes; the drafting of the Chemical Substances and Products Act to protect the health of both the people and the environment from the hazards of industrial and household chemicals; and the amendment of the Control of Smoking Act of 1992 to promote public health safety.

The electricity and water supply sector received the highest development expenditure in 2010/1 FY, reflecting construction of the dam projects to provide equal access to clean water across the country and upgrading Morupule 'B' powerstation.[2] Table 1 indicates that the agriculture, forestry and fishing sector received a smaller proportion of the development budget than other sectors because the recurrent budget assumes a larger share of the total, allocated mostly to animal disease emergency controls and management of natural resources, such as fish resources (Statistics Botswana 2012).

Compared to other sectors, development expenditure for mining has been minimal, mainly due to sector investments by private companies or corporations in Botswana. Also the agriculture, fishing and forestry sector attracted a minimum share of development expenditure from the government because of the sector's minimal contribution to GDP. However, the sector has started to gain importance in the government's development budget.

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[1] Lobatse Mental, Maun, Scottish Livingstone, Sekgoma Memorial and Mahalapye District Hospitals. Later, there was construction of Ghantsi Primary Hospital, upgrading of Letlhakane Hospital Theatre and construction of staff houses.

[2] These projects comprised construction of Thute, Lobatse and Dikgathong Dams.

The current expenditure pattern shows that the electricity and water sector has now recorded the highest percentage of development expenditure. The construction of roads, upgrading of rural and urban electricity networks, building urban and rural infrastructure, and mining have environmental consequences. However, over the past decade neither Botswana's development expenditures nor recurrent expenditures have targeted funding for environmental projects. But to achieve sustainable development, the government has outlined development objectives and priorities in environmental management. These are clearly stated in the NDP 10.

Of specific importance to this study is the government's development expenditure on environmental issues. When the ministry of environmental affairs, wildlife and tourism was established in 2002 and began operating in 2003, the sector's development expenditure started on a high note, but has since then decreased significantly. In 2003/4 environment accounted for 7.0 per cent of the total development expenditure; this increased to 7.2 per cent in 2004/5. Development expenditure started declining in 2005, when recurrent expenditure increased sharply due to flooding in some parts of the country, veld fires, vector-borne diseases such as malaria, diarrhoea, and the outbreak of foot and mouth disease and the invasion of crop pests.

The increasing concentration of people into urban areas, coupled with expanding industrial and agricultural activities, has had significant environmental consequences, such as pollution, land degradation and deforestation. Each time there is a natural disaster or the outbreak of environmentally related diseases, the government's overall environmental expenditure shifts from development to recurrent expenditure. This explains the fluctuations in the government's development expenditure to the environmental sector.

4 Aid donor agencies in Botswana

In 2007, the ministry of finance and development planning (MFDP) launched the Development Partners Coordination Forum for the purpose of documenting, coordinating, reporting and avoiding duplication of activities by donor agencies in the country. After the meeting a data platform was developed for information-sharing with the development partners on how the development assistance from external donors is used in the different sectors. The information includes the name of the donor country, development interventions undertaken in Botswana and total aid disbursements over the period 2008 to 2012. Table 2 presents the information collected and documented by MFDP (2012).

The most important aid donors are determined by the amount of aid disbursed in Botswana over the last five years. Using this yardstick, the top ten aid donors are USA, European Union (EU), Japan, private donors,[3] United Nations, other multilateral organizations,[4] France, Sweden and the AfDB. Other multilateral organizations include the World Bank and GEF and SACU. Also, the majority of private donor agencies are non-governmental organizations (NGOs) in the country. Aid disbursements in Botswana for the past five years total US$578,948,063. As seen in Table 2, most aid donors in Botswana discontinued funding in 2009 when the country attained a middle-income level of development; hence, graduated from being aid dependent.

Of the total aid amounts disbursed (US$578.9 million) to Botswana, only US$9.7 million was used in environmental projects, representing about 1.68 per cent of the country's total aid

[3] The main private donor agencies are the Bill and Melinda Gates Foundation and OPEC Fund for International Development.

[4] Assistance was mainly form the Global Environmental Facility (GEF).

Table 2: Aid disbursements of donors in Botswana, 2008–12 (US$)

	Donor country	Type	2008	2009	2010	2011	2012	Total
1	USA	Bilateral	66,668,114	319,600,116	0	0	0	386,268,230
2	European Union	Bilateral	31,854,707	32,069,531	38,876,812	1,161,968	1,127,171	105,090,189
3	Japan	Bilateral	22,467,034	2,216,050	0	0	0	24,683,084
4	Private donors	Private	0	19,613,649	0	0	0	19,613,649
5	United Nations	Multilateral	8,945,663	5,746,262	0	0	0	14,691,925
6	France	Bilateral	3,096,505	1,473,483	501,248	145,614	0	5,216,850
7	Others	Multilateral	3,136,380	1,934,008	0	0	0	5,070,388
8	Norway	Bilateral	3,016,238	1,826,478	0	0	0	4,842,716
9	Sweden	Bilateral	1,282,871	2,947,975	0	0	0	4,230,846
10	African Dev. Bank	Multilateral	0	0	2,020,000	245,653	0	2,265,653
11	United Kingdom	Bilateral	1,050,068	928,273	0	0	0	1,978,341
12	Canada	Bilateral	203,625	1,329,294	20,000	0	0	1,552,919
13	Finland	Bilateral	404,162	577,877	0	0	0	982,039
14	Australia	Bilateral	22,0241	521,611	0	0	0	741,852
15	Belgium	Bilateral	294,122	362,879	0	0	0	657,001
16	Denmark	Bilateral	569,521	58,356	0	0	0	627,877
17	Ireland	Bilateral	229,889	0	0	0	0	229,889
18	Portugal	Bilateral	78,576	43,012	0	0	0	121,588
19	Greece	Bilateral	57,695	0	0	0	0	57,695
20	Austria	Bilateral	10,015	10,413	0	0	0	20,428
21	New Zealand	Bilateral	4,866	38	0	0	0	4,904
	Total		143,590,292	391,259,305	41,418,060	1,553,235	1,127,171	578,948,063

Source: MFDP (2012). Available at: www.bodamis.gov.bw

inflows. This amount is quite insignificant, given the global recognition for the importance of environment and sustainable development.

A detailed breakdown of environmental interventions by aid donors is given in Table 3. Currently, in Botswana the most environmental aid donor is Global Environmental Facility (GEF). In order of magnitude, the UNDP and France are ranked second and third, respectively. Table 4 lists the aid disbursements by sectors. More than two-thirds of donor aid in Botswana is allocated to population policies/programmes and reproductive health. However, most of the aid allocated to this sector is used for the promotion of health. These include various projects targeted to promoting HIV/AIDS awareness, training, prevention and treatment, accounting for more than 80 per cent of the aid allocated to this sector.

The education sector received about 13 per cent of the country's aid disbursements between 2008 and 2012, while 4 per cent, of bilateral aid was allocated to debt cancellations. The health sector received only 1.23 per cent of total aid disbursed in Botswana. However, most of the aid disbursement allocated to population policies/programmes and reproductive health was used for health-related interventions. Sectors like agriculture, forestry and fishing, energy generation and supply, water supply and sanitation, and disaster prevention have received minimum attention from the bilateral and multilateral donor agencies. Allocations to the environment sector accounted for 1.68 per cent of total disbursements between 2008 and 2012. This indicates that although majority of the activities or programmes implemented by donor agencies have

Table 3: Disbursements for environmental projects, 2008–12 (in US$)

Donor agency	Title of environmental project	Disbursements 2008-12	Total per donor
		US$	US$
Canada CIDA	Internships	587	
Canada CIDA	Municipal Partnership Programme 2007-2010	2,647	3,234
Denmark DANIDA	Okavango Delta Management Plan	223,512	223,512
EU EDF	Wildlife Conservation and Management Programme	907,594	907,594
France AFD	Western Kgalagadi Conservation Corridor Project	976605	
France MEN	Environmental Research	29,239	
France MISC	Environmental Research	75,954	1,081,798
GEF	PIMS 1771 FSP Solar PV	209,210	
GEF	PIMS 1771 FSP Solar PV	436,874	
GEF	PIMS 2028 BD FSP Botswana Wetlands	1161,820	
GEF	PIMS 2028 BD FSP Botswana Wetlands	974,701	
GEF	PIMS 245 BD: Southern Africa B	24,501	
GEF	PIMS 2585 EA: NCSA	83,151	
GEF	PIMS 2585 EA: NCSA	19,870	
GEF	PIMS 2672 PDF-A: Sustainable Land Management	3,816	
GEF	PIMS 2841 MSP: NMT	180,270	
GEF	PIMS 2841 MSP: NMT	286,988	
GEF	PIMS 3125 PDF-B Birdlife	28,074	
GEF	PIMS 3358 EA: SNC	52,426	
GEF	PIMS 3358 EA: SNC	73,810	
GEF	PIMS 3362 IW MSP Integrated Water Resources Management	118,750	
GEF	PIMS 3984 BD MSP: Partnerships	80,890	
GEF	PIMS 418 EA: Biodiversity	10,742	
GEF	PIMS 418 EA: Biodiversity	100	
GEF	PIMS 942 FSP: IVP	97,825	
GEF	PIMS 942 FSP: IVP	64,270	
GEF	WB implemented GEF activities Semi Aggregated	25,018	
GEF	WB implemented GEF activities Semi Aggregated	138,080	4,071,186
Japan JICA	TC Aggregated Activities	30,310	
Japan JICA	TC Aggregated Activities	19,884	50,194
Sweden SIDA	Climate Change Botswana	127,222	127,222
UK FCO	Environmental Policy and Administrative Management	9,950	
UK FCO	Environmental Policy and Administrative Management	15,839	25,789
UNDP	Environment Support Programme 2008	879,000	
UNDP	Environment Support Programme 2009	577,000	
UNDP	PIMS 2028 BD FSP Botswana Wetlands 2008	223,000	
UNDP	PIMS 2028 BD FSP Botswana Wetlands 2010	975,000	
UNDP	PIMS 3125 PDF-B Birdlife 2008	28,000	
UNDP	PIMS 418 EA: Biodiversity 2008	72,000	
UNDP	Sustainable Land Management	64,000	
UNDP	Environmental Programme	268,565	
UNDP	Environmental Support Programme	105,826	3192,391
USA	Preservation of the ruins of the 19th century Old Palapye Church	54,100	54,100
Total		9,737,020	9,737,020

Source: MFDP (2012). Available at: www.bodamis.gov.bw

Table 4: Aid disbursements by sectors, 2008–12 (in US$)

Sector	Total aid disbursements (US$)	%
Population policies/programmes and reproductive health	390,479,107	67.45
Education	73,053,154	12.62
Debt	23,156,205	4.00
Government and civil society	16,940,719	2.93
Industry, mining and construction	15,621,848	2.70
Environment	9,737,020	1.68
Transport and Storage	9,617,555	1.66
Other multi-sector/crosscutting	9,289,158	1.60
Unallocated/unspecified	7,223,341	1.25
Health	7,121,847	1.23
Other social infrastructure and services	4,345,926	0.75
Agriculture, forestry and fishing	3,837,467	0.66
Water supply and sanitation	2,863,542	0.49
Energy generation and supply	1,915,637	0.33
Business and other services	1,060,611	0.18
Administrative costs	871,470	0.15
Communications	474,635	0.08
Banking and financial services	414,447	0.07
Trade and tourism	380,561	0.07
Support to NGOs	228,780	0.04
Emergency response	161,892	0.03
Disaster prevention	91,704	0.02
Food aid/food safety	61,437	0.01
Total	578,948,063	100.00

Source: MFDP (2012). Available at www.bodamis.gov.bw

environmental consequences, the issue of environmental sustainability has not been given the priority it deserves.

The above information is an indication of the aid disbursed in Botswana between 2008 and 2012. The next section examines total donor commitments for the period 2000 to 2010.

5 Donor aid to Botswana, 2000–10

Aid flows into Botswana were analysed using the database developed by the ministry of finance and development planning. The study also used the database of AidData.org to examine not only the total aid flows, but also donor agencies and their sectoral interventions in Botswana. This section presents the results of the analysis.

5.1 Total aid commitments to Botswana between 2000 and 2010

Table 5 shows the total aid commitments to the country between 2000 and 2010. The figures, shown in 2009 constant year US dollars, indicate that approximately US$4,568 billion was committed to Botswana between 2000 and 2010.

Table 5: Total aid commitments to Botswana, 2000–10 (2009 US$)

Year	Commitment (US$2009)
2000	48,573,756.44
2001	78,753,918.89
2002	107,769,296.64
2003	115,912,408.40
2004	111,483,097.88
2005	140,166,275.65
2006	92,430,669.66
2007	302,460,447.53
2008	818,150,202.88
2009	2,623,896,460.01
2010	128,399,632.27
Total	4,567,996,165.23

Source: Global Aid Data (2012).

The highest commitments, totalling US$2.6 billion, were recorded in 2009, followed by about US$818 million in 2008. These years coincide with the global economic crisis that also affected the economy of Botswana, which depends, to a large extent, on the mining sector and sound macroeconomic policies for the country's continued economic growth. This period also experienced the country's highest prevalence rate for HIV.[5] As Table 5 shows, foreign aid in Botswana has been increasing but started to decline after 2009.

5.2 Ranking of donor agencies in Botswana

This section examines the rankings of donor agencies in Botswana according to the amounts committed (Table 6). The top ten aid donors are AfDB, USA, World Bank, Germany, European Union, OPEC, Japan, Arab Bank for Economic Development in Africa (BADEA), Sweden, and Bill and Melinda Gates. These rankings, however, differ slightly from those presented in Table 2 because (i) the earlier table (in section 3) covers a shorter period (2008–12) and (ii) Table 2 represents actual disbursements rather than commitments. A comparison based on aid disbursements shows that donors like the United Nations and GEF have disbursed and implemented more programmes in Botswana than Germany or the BADEA, for example. But for these few exceptions, the two tables are quite similar in ranking the country's aid agencies.

Table 7 presents total foreign aid commitments to the different sectors and subsectors in Botswana. The highest commitment amounts were targeted to development and planning, health, energy, debt cancellations, and transport infrastructure. The agriculture and environment sectors ranked 8th and 9th, respectively, in aid commitment amounts. Out of total aid commitments of about US$4.57 billion for the period 2000–10, about US$1.5 billion was targeted for development and planning. However, this sector started gaining importance during the 2006–09 period, with a peak in 2009, coinciding with the global economic crisis. The sector's importance dropped significantly in 2010 as the economy recovered from the shock. The health sector has always attracted a significant percentage of the country's aid commitments because of the upsurge of HIV/AIDS, tuberculosis and other sexually transmitted diseases. The funds were earmarked specifically for building satellite health centres, AIDs counselling services, and the provision antiretroviral drugs for HIV/AIDs patients.

5 More details on this given in the subsequent sectors.

Table 6: Ranking of aid donor agencies in Botswana, 2000–10 (2009 US$)

	Donor	Total commitments
1	African Development Bank (AfDB)	1,868,445,086.00
2	United States	755,938,061.60
3	World Bank - International Finance Corporation (IFC)	708,798,166.00
4	Germany	460,323,302.00
5	European Communities (EC)	318,745,486.80
6	OPEC Fund for International Development (OFID)	82,415,958.83
7	Japan	57,341,876.92
8	Arab Bank for Economic Development in Africa (BADEA)	31,662,826.99
9	Sweden	31,597,074.93
10	Bill & Melinda Gates Foundation	29,813,000.00
11	Global Fund to Fight Aids, Tuberculosis and Malaria (GFATM)	29,748,239.56
12	France	28,074,934.56
13	Kuwait	21,113,507.27
14	Norway	20,922,892.92
15	Global Environment Facility (GEF)	20,238,043.93
16	United Kingdom	16,020,783.08
17	United Nations Children s Fund (UNICEF)	15,620,825.09
18	United Nations Population Fund (UNFPA)	11,865,031.09
19	Denmark	8,625,962.66
20	Joint United Nations Programme on HIV/AIDS (UNAIDS)	7,002,488.46
21	Canada	6,936,761.00
22	United Nations Development Programme (UNDP)	6,590,364.41
23	Netherlands	5,662,506.31
24	International Fund for Agricultural Development (IFAD)	5,547,383.62
25	Nigerian Trust Fund (NTF)	5,237,072.29
26	Finland	4,355,434.92
27	Belgium	3,670,340.53
28	Australia	2,159,245.69
29	India	1,322,460.08
30	Ireland	867,909.00
31	Brazil	580,646.93
32	Spain	437,853.43
33	New Zealand	163,406.86
34	Portugal	135,302.75
35	Greece	93,955.48
36	Italy	42,532.94
37	Austria	31,621.54
38	Korea	29,765.08
39	Luxembourg	24,570.00
40	World Trade Organization (WTO)	8,388.86
41	Thailand	1,513.89
		366,962,274.60

Source: AidData.org (2012).

Table 7: Total aid commitments by sectors in Botswana, 2000–10 (2009US$)

Sectors	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Total
Development & planning	0.0049	0.0000	0.0225	0.0000	0.0290	0.3909	1.9356	0.1813	0.0531	1519.0289	0.4877	1522.1340
Health	0.5127	3.3570	14.6393	42.5005	33.9264	38.2778	54.7810	233.8376	263.3159	129.9402	69.3248	884.4132
Energy	0.0338	0.0000	0.0000	4.1128	0.0408	4.2849	0.0763	0.0280	0.0000	672.6449	12.5315	693.7531
Debt cancellation	4.1691	3.4107	4.1280	1.8808	0.3836	6.2745	5.6166	0.6517	428.1744	0.0549	0.0471	454.7914
Transport infrastructure	0.4083	0.0000	21.1135	25.4726	0.0000	1.0631	0.0000	32.3159	48.7525	185.7175	0.1998	315.0432
Education	1.3079	2.2810	3.6546	7.0123	0.5703	78.2338	2.4979	3.7739	1.9082	85.8726	16.3790	203.4915
Multi-sectoral	5.4251	3.0513	0.5142	3.2457	64.1627	1.3554	2.9662	2.1109	2.8528	10.0742	3.4332	99.1916
Agriculture	6.9134	4.3425	3.9569	0.4929	0.2895	0.4917	0.8123	7.9452	61.1112	1.6513	6.1807	94.1876
Environment	18.7535	20.1591	4.3485	0.8183	0.1726	0.4282	4.9579	1.9427	1.3103	6.7860	1.9107	61.5878
Mining	0.3331	0.0000	41.1245	0.0000	0.0000	0.0000	0.0881	7.0654	0.0234	0.0000	1.4487	50.0833
Administration	1.0843	3.9730	0.4369	2.9287	0.5583	1.7860	6.2014	5.6971	4.5174	1.6423	4.9865	33.8119
Forestry	0.0000	30.2613	0.0000	0.0552	0.0000	0.1404	0.1868	0.1711	0.0668	0.0947	0.4723	31.4487
Unspecified	2.6090	3.7940	2.5620	2.2516	7.3709	2.8394	0.1205	0.2129	0.6371	0.7569	6.2138	29.3681
Water and sanitation	0.0000	0.0000	0.3401	20.9931	0.0000	0.2338	0.6866	0.1074	1.0363	0.0032	0.1038	23.5043
Social services	0.3843	0.5042	3.9286	1.2863	0.0710	0.7632	8.9530	1.6594	0.2268	0.4330	0.2862	18.4962
Justice	0.0000	0.1299	4.7482	0.0000	0.0874	0.0000	0.0047	0.0069	0.0000	2.3671	0.0761	7.4204
Civil society	0.2504	1.7776	0.2307	0.0361	1.8833	0.4015	0.1057	0.0745	0.0910	0.7611	0.0875	5.6994
Population policy	0.0000	0.3830	0.6571	0.7084	0.2369	0.3966	0.3002	0.3498	0.6261	0.8877	0.8450	5.3907
Culture and recreation	0.3688	0.5375	0.4295	0.6918	0.4668	0.3582	0.5671	0.3043	0.5655	0.1411	0.3969	4.8276
Rural development	2.2143	0.0000	0.0000	0.0000	0.0504	0.0116	0.2222	2.0810	0.0000	0.0215	0.2103	4.8114
Tourism	2.8905	0.0195	0.0298	0.0000	0.0236	0.4099	0.1841	0.4654	0.0773	0.4717	0.1593	4.7311
Business	0.0000	0.0008	0.0003	0.1205	0.2251	0.0423	0.1055	0.1296	1.2094	0.0363	1.5139	3.3836
Capacity building	0.4412	0.5874	0.5662	0.1458	0.0000	0.0000	0.0559	0.1664	0.5173	0.8184	0.0106	3.3092
Relief	0.2494	0.0000	0.0000	0.0000	0.0000	0.0365	0.2123	0.2412	0.2809	1.1213	0.2165	2.3579
Industry	0.2199	0.0944	0.3180	0.0009	0.0058	0.3110	0.1071	0.0147	0.1761	0.7126	0.0865	2.0470
Financial development	0.0000	0.0000	0.0000	0.0000	0.6026	0.2247	0.0000	0.0000	0.0919	0.7895	0.0148	1.7235
Elections	0.0000	0.0000	0.0000	0.4261	0.0000	0.3179	0.2848	0.2867	0.1026	0.0619	0.1400	1.6200
Human rights	0.0000	0.0559	0.0152	0.2897	0.0169	0.0743	0.0000	0.2148	0.0401	0.6860	0.0275	1.4204
Trade	0.0000	0.0000	0.0000	0.0386	0.2859	0.0794	0.0909	0.1882	0.1720	0.0121	0.4102	1.2773
Information	0.0000	0.0000	0.0000	0.0000	0.0034	0.7947	0.0945	0.0608	0.0000	0.0647	0.0625	1.0806
Urban development	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.1216	0.1313	0.1368	0.0000	0.0000	0.3897
Housing	0.0000	0.0000	0.0000	0.2110	0.0000	0.0625	0.0547	0.0355	0.0000	0.0080	0.0000	0.3716
Women	0.0000	0.0000	0.0000	0.0932	0.0000	0.0000	0.0008	0.0000	0.0013	0.2007	0.0227	0.3187
Nutrition	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0099	0.0088	0.0011	0.1805	0.0014	0.2016
Chemicals	0.0000	0.0000	0.0048	0.0834	0.0000	0.0000	0.0000	0.0000	0.0000	0.0075	0.0184	0.1141
Security	0.0000	0.0000	0.0000	0.0000	0.0000	0.0799	0.0108	0.0000	0.0000	0.0000	0.0000	0.0907
Technology	0.0000	0.0339	0.0000	0.0000	0.0022	0.0022	0.0175	0.0000	0.0000	0.0000	0.0000	0.0559
Elections	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0274	0.0000	0.0274
Fisheries	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0056	0.0148	0.0204
Total	48.5738	78.7539	107.7693	115.8964	111.4656	140.1663	92.4307	302.4604	818.0756	2624.0834	128.3208	4567.9962

Source: AidData.org (2012).

Table 8: Percentage of sectoral donor aid commitments, 2000–10 (2009 US$)

Sector	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Total
Development and planning	0.01	0.00	0.02	0.00	0.03	0.28	2.09	0.06	0.01	57.89	0.38	33.32
Health	1.06	4.26	13.58	36.67	30.44	27.31	59.27	77.31	32.19	4.95	54.02	19.36
Energy	0.07	0.00	0.00	3.55	0.04	3.06	0.08	0.01	0.00	25.63	9.77	15.19
Debt cancellation	8.58	4.33	3.83	1.62	0.34	4.48	6.08	0.22	52.34	0.00	0.04	9.96
Transport infrastructure	0.84	0.00	19.59	21.98	0.00	0.76	0.00	10.68	5.96	7.08	0.16	6.90
Education	2.69	2.90	3.39	6.05	0.51	55.81	2.70	1.25	0.23	3.27	12.76	4.45
Multi-sectoral	11.17	3.87	0.48	2.80	57.56	0.97	3.21	0.70	0.35	0.38	2.68	2.17
Agriculture	14.23	5.51	3.67	0.43	0.26	0.35	0.88	2.63	7.47	0.06	4.82	2.06
Environment	38.61	25.60	4.04	0.71	0.15	0.31	5.36	0.64	0.16	0.26	1.49	1.35
Mining	0.69	0.00	38.16	0.00	0.00	0.00	0.10	2.34	0.00	0.00	1.13	1.10
Administration	2.23	5.04	0.41	2.53	0.50	1.27	6.71	1.88	0.55	0.06	3.89	0.74
Forestry	0.00	38.43	0.00	0.05	0.00	0.10	0.20	0.06	0.01	0.00	0.37	0.69
Unspecified	5.37	4.82	2.38	1.94	6.61	2.03	0.13	0.07	0.08	0.03	4.84	0.64
Water and sanitation	0.00	0.00	0.32	18.11	0.00	0.17	0.74	0.04	0.13	0.00	0.08	0.51
Social services	0.79	0.64	3.65	1.11	0.06	0.54	9.69	0.55	0.03	0.02	0.22	0.40
Justice	0.00	0.16	4.41	0.00	0.08	0.00	0.01	0.00	0.00	0.09	0.06	0.16
Civil society	0.52	2.26	0.21	0.03	1.69	0.29	0.11	0.02	0.01	0.03	0.07	0.12
Population policy	0.00	0.49	0.61	0.61	0.21	0.28	0.32	0.12	0.08	0.03	0.66	0.12
Culture and recreation	0.76	0.68	0.40	0.60	0.42	0.26	0.61	0.10	0.07	0.01	0.31	0.11
Rural development	4.56	0.00	0.00	0.00	0.05	0.01	0.24	0.69	0.00	0.00	0.16	0.11
Tourism	5.95	0.02	0.03	0.00	0.02	0.29	0.20	0.15	0.01	0.02	0.12	0.10
Business	0.00	0.00	0.00	0.10	0.20	0.03	0.11	0.04	0.15	0.00	1.18	0.07
Capacity building	0.91	0.75	0.53	0.13	0.00	0.00	0.06	0.06	0.06	0.03	0.01	0.07
Relief	0.51	0.00	0.00	0.00	0.00	0.03	0.23	0.08	0.03	0.04	0.17	0.05
Industry	0.45	0.12	0.30	0.00	0.01	0.22	0.12	0.00	0.02	0.03	0.07	0.04
Financial development	0.00	0.00	0.00	0.00	0.54	0.16	0.00	0.00	0.01	0.03	0.01	0.04
Elections	0.00	0.00	0.00	0.37	0.00	0.23	0.31	0.09	0.01	0.00	0.11	0.04
Human rights	0.00	0.07	0.01	0.25	0.02	0.05	0.00	0.07	0.00	0.03	0.02	0.03
Trade	0.00	0.00	0.00	0.03	0.26	0.06	0.10	0.06	0.02	0.00	0.32	0.03
Information	0.00	0.00	0.00	0.00	0.00	0.57	0.10	0.02	0.00	0.00	0.05	0.02
Urban development	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.04	0.02	0.00	0.00	0.01
Housing	0.00	0.00	0.00	0.18	0.00	0.04	0.06	0.01	0.00	0.00	0.00	0.01
Women	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.01
Nutrition	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00
Chemicals	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
Security	0.00	0.00	0.00	0.00	0.00	0.06	0.01	0.00	0.00	0.00	0.00	0.00
Technology	0.00	0.04	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00
Elections	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fisheries	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

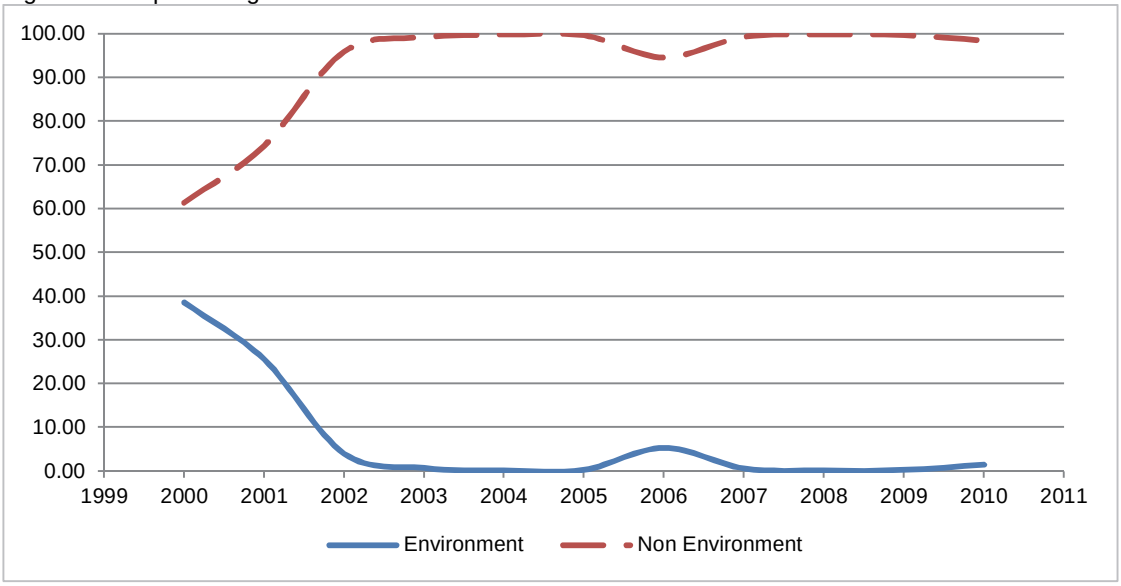
Source: AidData.org (2012).

Recently, the energy sector has gained importance in the country. Most aid commitments to this sector are targeted for upgrading Botswana's electricity system by constructing coal-fired plants, solar energy and pursuing the possibility of building a nuclear powerplant. Transport infrastructure development has been focused mostly on the provision of rural road networks, upgrading major highways, as well as expanding the road networks of major cities. This has also included the upgrading of the country's main international airports at Kasane and Maun.

The environment sector was singled out in the early 2000, when the country had implemented an environmental act and set up the ministry of environment, wild life and tourism. The sector's importance in the mid-2000s declined in terms of aid commitments but is gradually regaining importance, given the global relevance of sustainable development. The fluctuating importance of the environment sector can be seen in Table 7. Table 8 gives the percentage of sectoral donor commitments. In 2000, about 38 per cent of donor aid commitments were earmarked for the environmental sector. This percentage declined to its lowest level in 2004 and aid commitments to this sector has since been among the least in the country. The percentage of donor aid commitment to the environment sector in Botswana for the period 2000–10 was 1.35 per cent. This is not an encouraging pattern, given the country's environmental problems and the global concern for environmental sustainability.

Figure 1, showing foreign donor aid commitments to the environmental sector as compared to other sectors, indicates that commitments were at their highest in 2000. These dropped to their lowest level between 2003 and 2005, increased in 2006, but declined again thereafter.

Figure 1: The percentage of donor aid commitments to the environment versus non-environment sectors



Source: Author's analysis.

This study has considered aid commitments that were exclusively focussed on the environmental sector. These efforts included measures for preservation of the wetlands and biodiversity sites, as well as environmental policy and administrative management, related education and training, environmental research, protection of endangered species and other unclassified efforts.

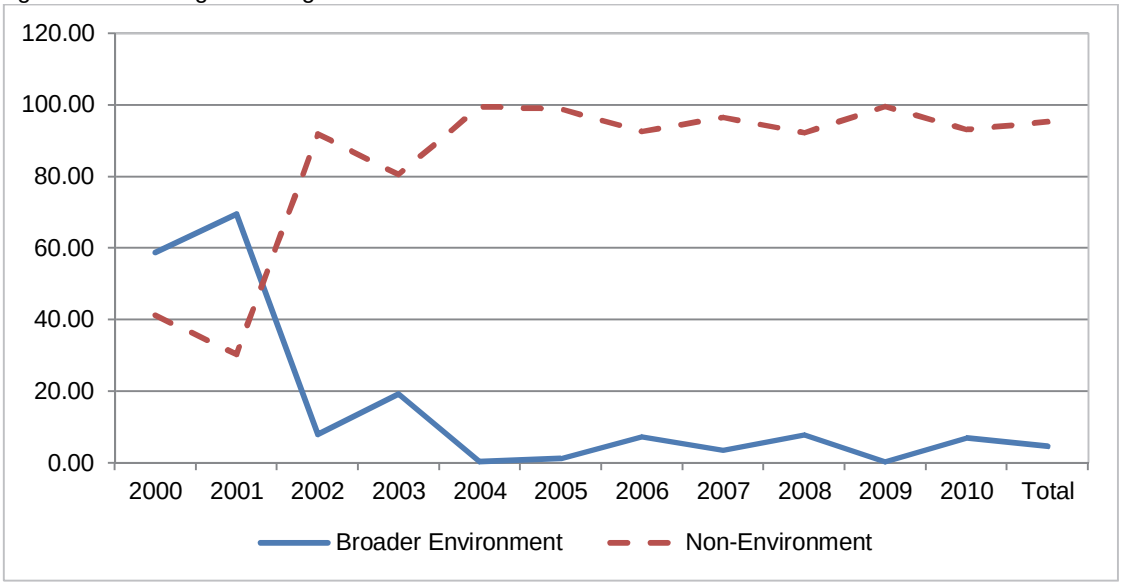
Nevertheless, aid dispensations to other sectors also have ramifications for the environment. These concern, for example, forest conservation and afforestation, sustainable fisheries management water and sanitation, sustainable management of agricultural land for livestock grazing and arable farming, appropriate municipal waste disposal methods, water quality

improvements for rural and urban areas and eco-tourism but which were not considered in donor commitments as strictly environmental aid. Had they been considered as such, the scenario presented above would have been different. To capture the effect of this stream of aid, the study now incorporates other sectors such as water and sanitation, agriculture, forestry, and tourism into the framework for a broader picture of donor aid commitments and the environment.

As shown in Figure 2, when other aid interventions that may have a possible positive impact on the environment are included, the picture is slightly different from the result when only strictly environmental interventions are considered. Nonetheless, the pattern is similar to the one presented earlier. A higher percentage of aid commitments was allocated to general environmental interventions in 2000 and 2001, albeit with a declining proportion/percentage in subsequent years. The lowest percentages were evident in 2004, 2005 and 2009, with a slight upswing appearing after 2009.

The decline in foreign aid commitments to the general environmentally-friendly interventions possibly reflects the high HIV/AIDS rates in the country in the mid-2000s, as indicated by the highly disproportionate interventions in the health sector in 2003, 2004, 2006, 2007, 2008 and 2010. In 2008, considerable attention was given to debt cancellation, and the 2009 objective to develop the country's energy sector. Faced with these challenges, the environment in sustainable development was not an important priority of the foreign aid intervention agenda.

Figure 2: Percentage of foreign aid commitments to broader environment and non-environment interventions



Source: Author's analysis.

5.3 Aid and environment in Botswana

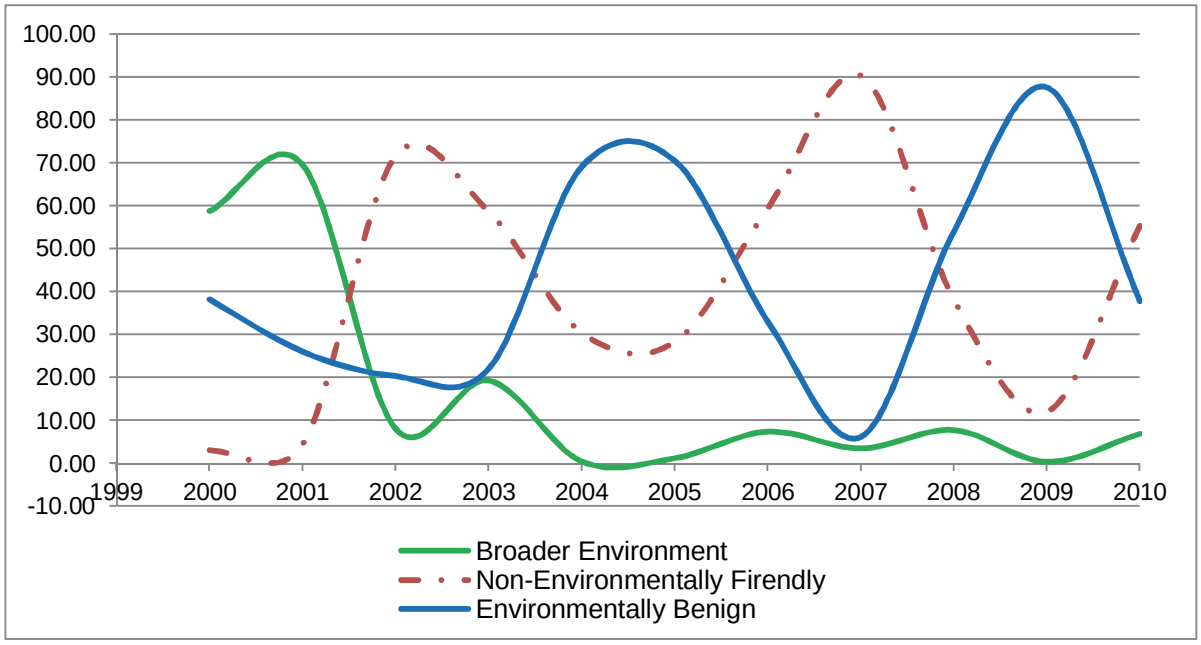
It could be inferred from the discussion above that the role of the environment in the sustainable development of Botswana was prioritized in the early 2000s, but this was overshadowed by the concern for improving health and education. Although interventions leading to improved environmental benefits for Botswana have been examined, the converse (i.e., the negative impact of foreign aid on the environment) has not been considered. It is difficult to quantify the impact of foreign aid on the environment, but we can qualitatively review the possible adverse effects of the sectors that may have the potential to damage the environment. These include the energy sector, especially the construction of coal fired and

nuclear powerplants; transport infrastructure, which includes the construction and extension of airports and rural road networks, upgrading the country's major highways, as well as mining and industrial development.

Foreign aid to the energy sector for such purposes can lead to the production of carbon monoxide and nuclear waste, with adverse future consequences for the environment. Similarly, mining and industrial development induces water and air pollution as well as underground water pollution through the seepage of wastes generated by these activities. The construction and extension of roads and airports may induce deforestation and the reduction of land available for arable and pastoral farming.

Figure 3 shows three types of development aid allocated to Botswana between 2000 and 2010. The green line shows aid committed to broader environmental efforts, referred to as environmentally-friendly aid. The red broken line represents aid commitments that may have damaging consequences, while the blue line represents aid commitments with minimal or no environmental impacts. As Figure 3 shows, most commitments between 2000–01 to Botswana were environmental aid, while the subsequent period (2002–04) saw the focus shifting from the environment sector to such sectors as transport infrastructure, energy, industrial development and mining. This focus peaked during 2006–07. At the same time, concern over the country's high HIV rates caught the attention of the international community, who viewed the pandemic as a national disaster and thus focused on the problem at the expense of the environment. The country's powerplants (coal-fired and nuclear), its mining industry (diamonds, coal and gold) and the construction of transport infrastructure could have detrimental consequences for the environment in the future.

Figure 3: Comparing the trends of broader environment, non-environmentally friendly and environmentally benign interventions in Botswana



Source: Author's analysis.

6 Donor perspectives on environmental issues in Botswana

After collecting and analysing the information available on the multilateral, bilateral and non-governmental donor activities in Botswana, it was necessary to conduct face-to-face interviews with the country's top donor agencies. This was done to:

to validate the information collected from the MFDP and AidData.org., and

to gain first-hand information from donor agencies on their perceptions about the impact of their activities on the environment.

To measure the perceptions of the donors, a structured questionnaire was prepared, and seven out of the top ten donor agencies were approached for interviews. Not many of these top agencies are located in Botswana and others turned down the request for a personal interview, referring us instead to their headoffices in their home countries. Thus, the analysis presented below reflects the opinions of only those donor agencies that were willing to respond: the EU (which started to provide aid to Botswana in 1975), JICA (in 1986), GEF (1992), UNDP (1975), and later the United Kingdom (1966).

The first question of interest was on sectoral interventions or sectoral coverage of donor disbursements. According to the responding donors, they are engaged in infrastructural development (2 interventions), health (2), environment (2), human resource development (1), human rights (1), poverty alleviation (1) and community development (1). Both the MFDP aid data and the AidData.org platform confirm that aid donors have been active in these sectors. The second issue covered by the questionnaire was the amount spent on the sectors and subsectors. Not all the respondents responded to this question; hence, this report relies on information provided by the AidData.org.

The third important question was the type of environmental project funded and amount disbursed in the last five years.

Table 9: Aid disbursements to environmental projects in Botswana

		Amounts disbursed in:		Total per donor
Aid donor	Environmental projects	BWP (millions)	US$	US$
JICA	Bird Life Botswana	0.376	50,190.00	51,190.00
EU	Preserving Botswana environment	0.099	13,212.53	
	Rehabilitation of degraded land	0.100	13,333.33	
	Sustainable utilization of VIPs	0.100	13,333.33	
	Snake conservation	0.193	25,786.67	
	Natural resource based economic opportunities	0.500	66,653.86	132,319.70
GEF	Biodiversity	12.788	1,705,066.66	
	Climate change	4.341	578,800.00	
	Land degradation	3.081	410,800.00	
	International waters	0.975	130,000.00	
	POPs	1.819	242,533.33	
	Multi focal area	0.200	26,666.67	3,093,867.00
UNDP	Unspecified environmental projects	23,942,932.5	3,192,391.00	3,192,391.00
Total disbursements				6, 478,767.70

Source: Author's computation based on donor responses.

Table 9 indicates the amounts allocated to environmental projects in Botswana, as reported by the donor agencies. A comparison of these figures to those collected from government records brings an interesting observation to light: it would seem that donor agencies have understated their actual environmental expenditures. For example, according to the MFDP source, GEF has disbursed approximately US$4.1 million, but their own information puts the total disbursements at US$3.1 million. Furthermore, most of the environmental projects indicated in MFDP sources

are not mentioned by GEF. Similarly, UNDP's responses did not specify the environmental projects they had implemented in Botswana.

The fourth point of interest was the rating of the importance of the environmental sector to donors. This was measured on a scale of 1-to-4, with the highest score indicating very important (4) to not important (1). The responses of the five respondents are as follows: three donors considered the environment sector very important; one indicated that it was moderately important; while only one respondent considered it as less important. However, these responses are not consistent with the general aid trends given in Tables 4 and 9, which show that only 1.68 per cent and 1.49 per cent of the total aid disbursements and commitments, respectively, go to strictly environmental projects. Applying a broader definition of environmental projects (as shown in Figures 2 and 3), 4.7 per cent of total aid commitments were earmarked to the environmental sector.

A follow-up question to this issue was on the percentage of aid spent on environmental projects. Three of the responding donor agencies indicated that they had spent less than 20 per cent of their aid disbursement on the environmental sector, one indicated between 61–80 per cent and one reported that the amount spent on environmental sector is between 80–100 per cent. This confirms that most donor agencies do not consider the environment in their aid commitment or disbursement decisions. It also confirms the percentage of total aid commitment to broader environmental issues. The interviewed donor agencies stated the following:

> The three donors with disbursements below 20 per cent of the funding for the environmental sector explained that their organizations' focus area was not the environment and that they were active in funding the government's priority sectors.
>
> The two donors whose environmental disbursements were in the range of 61–100 per cent stated that this strong involvement was based on the fact that (i) the agency either funded environmental projects exclusively or because the agency had recognized that the environmental sector was not among the government's funding priorities, and (ii) they sought to support sustainable global, regional and national development, which is overlooked in the government's development funding budgets.

The fifth question proposed to the interviewees was based on whether or not the donor agencies believed that the environmental aid provided by their organizations should be increased or extended. Three of the five respondents answered yes, while two were undecided, explaining that all their sectoral funding decisions were made by their home governments, based on the many bilateral funding agreements with Botswana; thus their funding was channelled through environmental research collaboration between the two countries.

The three donor agencies answering 'yes' to an increase or extension in environmental projects justified their position with the perception that:

> Botswana is largely dependent on environmental resources for rural livelihoods, and as such there is need for assistance in order to manage these resources sustainably.
>
> The concern for environmental sustainability has gained global support, and Botswana is seen as one of the SSA countries that is vulnerable to climate change/variability, land degradation, deforestation, desertification, natural resource depletion, and pollution.
>
> Intervention by multilateral organizations can provide specific opportunities in certain aspects of environmental management that might otherwise be neglected in normal government

planning and budgeting processes. Therefore, the need exists for the provision of international expertise and policy advice to the government on important issues not well taken care of by countries.

The sixth issue was the impact of non-environmental aid on the environment in Botswana. All the donor agencies interviewed answered that their interventions have had no impact on the environment.

Next, the donor agencies were asked to measure the success or failure of their projects/programmes. The following comments were provided by the responding donor agencies:

> Projects are evaluated according to their relevance, effectiveness, efficiency, impact and sustainability. If these criteria are not satisfactorily met, project is not considered a success. Conversely, a project is rated as successful when these criteria are met.
>
> Post-programme evaluation is used to determine whether the pre-programme objectives had been achieved.
>
> Project success is gauged in terms of its outputs and their comparison to predetermined targets.
>
> Project success can also be assessed through its positive contribution to government policies.

The donor agencies were asked to single out one environmental project that had succeeded and one that had failed. Table 10 summarizes the responses from the interviewed donor agencies.

As can be seen, the majority of the successfully implemented GEF and UNDP schemes are environmentally-related projects, where communities, stakeholders or beneficiaries have had an important role in their success. The European Union has concentrated on education and human resources development projects; contribution to environmental projects has been minimal. With regard to failed environmental projects, only the European Union reported failure. 'Women's Empowerment for Natural Resources Based Livelihood in Kasane' failed because of a slow take-off, and because the planned implementation time expired before the relevant activities had been concluded.

The next item in the questionnaire was the key factors that contributed to the success of projects in Botswana. This issue was raised in order to analyse the role played by the local community, government or private sector in achieving the goals of donor implemented projects. The responses are presented in Table 11.

Thus, it is clear from the above responses that in order for projects to succeed, beneficiaries need to be a part of the implementation process, and assume ownership for such projects. With such ownership, even when the implementation phase is over, there is a better chance that the beneficiaries will endeavour to design methods for sustaining the project and its benefits. Projects should address key development issues that are prioritized by the national government. Furthermore, successful implementation calls for effective and efficient monitoring and reporting systems during all implementation phases.

Table 10: Successful projects implemented by donors in Botswana

Donor	Successful project(s)	Reason
JICA	None	Projects are still at the implementation stage.
EU	Human Resource Development Programme	Project contributed to the improvement in the technical skills of public employees in Botswana.
	The Bicycle for Education Project	Project contributed to increased school enrolment, reduced absenteeism, and improved secondary schools' public exam results.
	Waste Recycling Project in Mochudi	Project promoted community participation, partnership with the private sector and regular consultations with the authorities.
GEF	Integrated Water Resources Management	Project increased water use efficiency.
	Strategic Partnership to improve the operational sustainability of protected areas	Project promoted periodic engagement with all the stakeholders (multi-stakeholders) and dealt with critical sustainable development issues
UNDP	Renewable Rural Electrification Project	Project contributed to rural communities accessing solar energy, and facilitated the discourse on renewable energy in the community.
	Poverty-Environment Initiative	Project increased the awareness of all stakeholders in the role of environment and natural resources in economic development.
		Provision of input to the new tourism and wildlife policy formulations.
		Poverty-environment initiatives have been integrated in NDP 10 and *Vision 2016* documents.
		Formulation and legislation of the New Environmental Act to include environmental impact assessment of all projects before implementation.

Source: Collated by the author from donor responses.

Table 11: Key factors considered by donors to contribute to the success of environmental projects in Botswana

Donor	Key factors contributing to success
JICA	Strong ownership towards a project by counterparts
	The degree of skills/capacity of counterparts for implementing the project
EU	The involvement of the beneficiaries as leaders of the project on a voluntary basis
	The target beneficiaries need to be aware of the benefits of the project
	Strong institutional support outside the community, adequate financial resources
	Projects should address key development issues that are also included in national priorities
GEF	Good monitoring tools, formation and coordination of project implementation committees, and that projects should address key development issues
UNDP	Wide participation of relevant stakeholders, political will and commitment among key drivers and beneficiaries

Source: Collated by the author from donor responses.

The final item in the questionnaire asked the donor agencies to relate their conclusions with respect to 'aid and the environment' in Botswana. The following summarizes the donor agency responses:

> Aid for environment is not well coordinated in the country. Less work seems to have been done in the area of environmental interventions.

The country's environmentalists are not strong advocates on the need for donor aid in the environmental sector. Consequently, other social sectors like HIV/AIDS, infrastructure and education have caught the attention of the donors, attracting a lion's share of the aid in the country.

Most aid in the environmental sector has short-term implementation periods, and focuses on small-scale projects as opposed to consideration for the whole ecosystem.

Environmental aid has been very useful in driving and achieving national and international objectives relating to conservation and development.

Environmental aid is directly linked to economic development, thus it also addresses tissues related to the country's marginalized or disadvantaged groups.

In view of the country's environmental challenges, foreign aid is vital for the sector because the government budget on environment-related issues is limited.

6.1 Analysis of the most successful environmental project in Botswana

This subsection analyses the implementation of one of the country's most successful environmental project—the Poverty-Environment Initiative. This was a joint programme of two United Nations agencies (UNDP and UNEP) and the government of Botswana, with the aim to support economic growth, diversification, and poverty eradication in a sustainable environment. Specifically the project sought to:

to enhance quality of the programme, through the provision of important aspects of global networking, co-financing options and global cutting-edge input into the work of Poverty-Environment Initiative in Botswana;

to enhance the integration and coordination of sustainable renewable resource management in national sectoral and district policy planning and budgetary processes;

to build national capacity to integrate and coordinate poverty-environment issues in sector- and district-level policies, plans, budgets, and monitoring systems;

to raise awareness and encourage the participation of all key stakeholders in combating environmental problems such as land and rangeland degradation, biodiversity loss, water scarcity, pollution and climate change;

to provide support to assist the government of Botswana in responding to climate change, by enhancing the knowledge base of the socioeconomic impacts of climate change; and

to implement integrated approaches, tools, methodologies and assessments for mainstreaming environment in policies and plans for promoting growth and poverty reduction (PEM 2011).

This project emphasized the link between the environment, economic growth, and poverty reduction and was clearly intended to show how environmental issues can be incorporated into policy planning and budgetary processes. As such, it supported Botswana's *Vision 2016* and the NDP 10. Other partners of this project included the International Institute for Environment and Development (IIED) and the World Bank (WAVES).

The implementation of the project (2010–11) was headed by the ministry of finance and development planning, in collaboration with the ministry of environment, wildlife and tourism. Other national stakeholders included the ministries of agriculture, land and housing, minerals, energy and water resources, Office of the President of Botswana, district councils, University of Botswana, civil societies, and community-based organizations. The participation of the numerous interested stakeholders may account for the success of the project. It also made the country's

national and local institutions perceive themselves as beneficiaries from its successful implementation.

Interventions included:

- the development of an advocacy and communication strategy to foster awareness of the poverty-environment linkages;
- conducting awareness raising workshops for NGOs and the media;
- giving support to the national strategy for sustainable development;
- supporting the parliamentary committees on climate change, including recognition of the link between climate change and poverty and environment; and
- preparing documents for poverty and social impact analyses of the integrated support programme for arable agriculture development and an economic study on the contribution of environment and natural resources to the economy.

Total cost of the project was US$2,250,000 of which the breakdown was as follows: UNDP and UNEP each contributed US$1,000,000 and the government of Botswana US$250,000.

Several major successes were recorded for the Poverty-Environment Initiative:

- The project has provided input to the new tourism and wildlife policies, which include the incorporation of sustainable and pro-poor use of resources and community-based natural resource management in national environmental policies.
- The Poverty-Environment Initiative was integrated into Botswana's NDP 10 and *Vision 2016*.
- The project has also built capacity to assess the environmental and social impacts of all projects that have environmental consequences and to monitor the activities of these projects.

Conversely, it should also be mentioned that the interviewed donor agencies did not provide evidence of failed environmental projects.

7 Summary and conclusions

This study was designed to document and analyse the sectoral development expenditure of the government of Botswana for the last decade, examine the activities and disbursement of foreign aid donors in the country, gather information from top aid donors on their perceptions on and disbursement of environmental aid, as compared with the country's other aid-receiving sectors. The study has also briefly discussed Botswana's environmental problems and provided an estimate of foreign aid interventions specifically directed towards recognized environment challenges.

From the review of available documents the study finds that although the government of Botswana has enacted various environmental legislations and signed numerous environmental conventions, protocols and agreements, the country has not specifically identified development expenditure targeted towards environmental interventions as it has done for most of the other sectors. However, the NDP 10 has included specific environmental targets to meet by the year 2016. Also sub-allocations to the ministry of environment, wildlife and tourism have specified the environmental interventions undertaken by the government. Information from the sectors and subsectors that deal with environmental issues reveal that the government of Botswana's

development expenditure on the environment was an insignificant percentage of the overall development budget.

Review of the aid platform from the ministry of finance and development planning shows that the total aid disbursed in Botswana in the last five years was about US$579 million, but more than two-thirds of this amount was allocated to HIV/AIDS activities. Only about 1.67 per cent of the total aid flow was allocated to solving the country's environmental problems. Both data sources[6] showed a similar pattern of aid interventions and possible impacts of aid on the environment.

The study also used a structured questionnaire to interview Botswana's top aid donor agencies, but the response rate was low. The following is a summary of important issues in aid administration in general, and aid and environment in particular.

As the environment sector is vital for attaining sustainable economic development, it needs a significant proportion of the country's overall aid disbursements. This calls for a significant increase in environmental aid disbursements. However, some agencies have side-stepped the issue because their activities are dictated by their government's bilateral agreement with Botswana.

Botswana is largely dependent on environmental and natural resources for its economic growth and rural livelihood, but this sector has not been warranted attention in development budgets.

Donor agencies believed that most of projects they implemented in the environmental sector have been successful. The successful implementation of environmental projects is determined by the degree of skills developed, involvement of the target beneficiaries in the implementation process, strong institutional support from outside the community, provision of adequate financial resources and wide participation of relevant stakeholder. Project success is evaluated in terms of effectiveness, efficiency and the extent to which the project meets its pre-determined objectives.

The donor agencies who responded to the questionnaire indicated that aid for the environment was not well coordinated, that environmentalists were weak in advocating for more environmental projects, that most environmental projects were implemented on a short-term basis. But they did agree that environmental aid in Botswana has been very useful in driving and achieving national conservation objectives and that it is directly linked to sustainable economic development.

Finally, the donor agencies reported that the government did not make adequate provision for the environment, despite the environmental consequences generated by the activities of other development sectors.

The study concludes that:

> The environmental sector has not been given due consideration either by the government of Botswana or most of the foreign aid donors in the country.
>
> Aid flows to the environmental sector are not well coordinated; thus the impact of environmental interventions has not been well assessed.

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[6] Aid statistics from national source was complemented by data from AidData.org.

Therefore, to make adequate preparation for the escalating environmental problems in the future, there is need for the government and foreign aid donors to earmark more allocations for environmental interventions. These interventions should be well coordinated and that the country, together with the donor agencies should developed appropriate methods to evaluate the successes or failures of these projects.

The foreign development aid platform information developed by the ministry of finance and development planning should be updated on regular basis. This should be the most reliable source of information on foreign aid disbursement and use in the country.

Acronyms

AfDB	Africa Development Bank
BADEA	Arab Bank for Economic Development in Africa
CEDA	Citizen Entrepreneurial Development Agency
CSO	Central Statistics Office (of Botswana)
FAP	Financial Assistant Programme
FY	financial year
GEF	Global Environmental Facility
GoB	government of Botswana
IUNC	International Union for Conservation of Nature
JICA	Japan International Cooperation Agency
MFDP	ministry of finance and development planning
MEWT	ministry of environmental, wild life and tourism
SSA	sub-Saharan Africa

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