



**Environmental Council of Zambia**

**2010  
Annual Report**

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## Vision

"A world class environmental authority that promotes sustainable development."

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## Mission Statement

"Safeguard human health and the environment through effective environmental management to provide for present and future generations".

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## Values

The Environmental Council of Zambia;

Is an equal opportunity employer that promotes innovation among its staff

Will provide professional leadership that inspires stakeholder confidence in environmental management.

Is committed to promoting partnership through collaboration and information sharing.

Believes in transparency and integrity.

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## LIST OF ACRONYMS AND ABBREVIATIONS

<b>CABI</b>	CAB International
<b>CFC</b>	12- chlorofluorocarbon
<b>CFCs</b>	Chlorofluorocarbons
<b>DDT</b>	Dichlorodiphenyltrichloro-ethane
<b>ECZ</b>	Environmental Council of Zambia
<b>EIA</b>	Environnemental Impact Assessment
<b>EIS</b>	Environnemental Impact Statement
<b>EMP</b>	Environmental Management Plan
<b>ENRMMP</b>	Environment and Natural Resources Management and Mainstreaming Programme
<b>EPB</b>	Environmental Project Brief
<b>EPPCA</b>	Environmental Protection and Pollution Control Act
<b>FNDP</b>	Fifth National Development Plan
<b>GHS</b>	Globally Harmonised System
<b>GRZ</b>	Government of the Republic of Zambia
<b>HCFC22</b>	Hydrochlorofluorocarbon
<b>IAS</b>	Invasive Alien Species
<b>IDC</b>	Information and Documentation Centre
<b>IEA</b>	Integrated Environmental Assessment
<b>IECC</b>	Inter-agency Environmental Coordination Committee
<b>KCM</b>	Konkola Copper Mines
<b>LIS</b>	Licensing Information System
<b>MBr</b>	Methyl Bromide
<b>MDG</b>	Millennium Development Goals
<b>MSD</b>	Mines Safety Department
<b>MTENR</b>	Ministry of Tourism, Environment and Natural Resources
<b>ODS</b>	Ozone Depleting Substances
<b>PCBs</b>	Polychlorinated Biphenyls
<b>PTS</b>	Pesticides and Toxic Substances
<b>SAG</b>	Sector Advisory Group
<b>SoE</b>	State of Environment
<b>UNEP</b>	United Nations Environment Programme
<b>ZANEPP</b>	Zambia Network for Environmental Educators and Practitioners
<b>ZCCM IH</b>	ZCCM Investment Holdings Plc
<b>ZEO</b>	Zambia Environment Outlook



## CHAIRMAN'S STATEMENT

I am pleased to present to you the 2010 Environmental Council of Zambia annual report. It is gratifying to note that there was improved environmental performance by facilities which underwent Environmental Impact Assessment process compared to facilities which never underwent assessment and have polluting technology. There has also been a steady increase in investments in the country with good environmental management plans resulting in improved compliance levels.

The Environmental Management Bill 2010 was tabled in Parliament and was expected to go through all the legislative stages as well as receive presidential assent in 2011. To ensure that Environmental management activities are mainstreamed in policies, plans and programmes being formulated in Zambia, ECZ focused on building capacity for Strategic Environmental Assessment (SEA) by developing draft guidelines and training key sectors in SEA methodologies. In addition, ECZ built capacity in selected Local Authorities in solid waste management. This resulted in an increased number of districts with designated waste disposal sites.

ECZ enhanced enforcement of industries so that they are in compliance to set standards and regulations through increased inspections and awareness raising activities. During the year under review, ECZ also implemented environmental monitoring programme which commenced collection of data on quality of emissions and ambient environment. Results show that emissions from water utility companies and some mining facilities were well above acceptable limits and these are of major concern as they negatively affect human health and the environment.

In 2010, the Council and its Committees continued to provide policy guidance through the scheduled meetings. There was smooth transition from the previous Council whose term came to an end in December 2009 and the new one which was appointed in January 2010.

During the year under review, a total of 310 EIA documents were considered out of which 283 were Environmental Project Briefs, 13 were Environmental Impact Statements and 14 were Environmental Management Plans.

I am grateful to ECZ members of staff and management for their hard work and milestones achieved in 2010.

Lastly, I wish to thank all the Councillors for the dedication and diligence exhibited. Your support and guidance enhanced continued environmental management, thereby providing an enabling environment for sustainable development.



Fredrick Bantubonse  
Vice Chairman  
For Chairperson  
Environmental Council of Zambia

## Environmental Council of Zambia – Council Members



Mr. Fredrick Bantubonse  
Vice Chairperson



Dr. Kenneth Nkowan



Mrs. Margaret Thompson



Mr. Mooya Lumamba



Mr. Edward Kapungulya



Mr. Peter Lubambo



Mr. Kakoma Chivunda



Mr. Oscar Kalumiana



Prof. F. Tembo



Mr. Andrew Phiri



Mr. Edwin Matokwani



Dr. Victor Munkonka



Mr. Albert Chalabesa



Mr. Mukelebai Mukelebai

## DIRECTOR'S STATEMENT

In 2010, ECZ continued to strengthen its regulatory framework through a review of various systems such as Inspection Procedure Manual, Licensing Checklists, finalization of monitoring guidelines and its programme. This resulted in increased environmental monitoring activities with the issuance of 3,523 pollution control licences compared to 2,443 in 2009 representing an increase of 57.1%.<sup>1</sup> The majority of these licenses were for Pesticides and Toxic Substances (PTS) which accounted for 59.4%, followed by Waste at 27.5%. Effluent discharge and Air emission licenses accounted for 6.9% and 6.2% respectively.

ECZ recorded an increase of 51% in EIA projects which underwent review in 2010. In 2009, 205 projects were submitted for review compared to 310 in 2010. The major categories were mining and prospecting at 28%, followed by energy at 27% and manufacturing and processing at 17%. Many of these were from the Copperbelt and Lusaka at 29% and 26% respectively and the rest were from other provinces.

ECZ completed and launched the Zambia Environmental Outlook Report 3. It further completed Kabwe and Kitwe District State of Environment Outlook Reports and commenced four others for Mansa, Mazabuka, Mongu and Nakonde.

ECZ is spearheading the development of a sector wide communication strategy in collaboration with Ministry of Tourism, Environment and Natural Resources. The strategy seeks to improve implementation of environmental awareness activities amongst key stakeholders in the environment sector.

ECZ continued to face several challenges during the year under review. The major challenges continued to be inadequate funding to meet operational costs, office space, and non-compliance to payment of licence fees, submission of statutory returns and pollution from facilities with old technology.

I wish to thank the Council for guidance provided during the year. Further, I wish to thank Management and members of staff for their effort and team work exhibited in the year 2010. I wish to encourage you to continue with this commitment in 2011.



Paul M. Banda  
Director  
**Environmental Council of Zambia**

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1 Some facilities have multiple licenses.

## Environmental Council of Zambia - Management



**Mr. Paul Banda**  
Director



**Mwiche Kabwe**  
Acting Manager - Planning &  
Information Management



**Patson Zulu**  
Manager - Northern Region



**Kalobwe Saya**  
Manager - Human Resource &  
Administration



**Edwin Soko**  
Manager - Finance & Accounts



**Chibesa Chibesakunda**  
Manager - Legal Services



**Joseph Sakala**  
Manager - Inspectorate

## 1.0 INTRODUCTION

Environmental Council of Zambia (ECZ) is a statutory body charged with the responsibility to protect the environment and control pollution in Zambia. The institution is governed by a Council whose membership is drawn from government and stakeholders in sectors which have an impact on the environment. The mandate of ECZ includes:

- i. Enforcement of regulations and standards on all aspects of the environment;
- ii. Advising government on the formulation of policies, standards and regulations related to environmental management;
- iii. Administration of the Environmental Impact Assessment (EIA) process;
- iv. Production of environmental education programmes to raise awareness on the role of the public in the protection of the environment; and
- v. Collection, collation, production and dissemination of environmental information.

During the period under review, ECZ focused on;

- i. Building capacity in Strategic Environmental Assessment (SEA);
- ii. Improving enforcement on industries so that they are in compliance to set standards and regulations;
- iii. Increasing the number of districts with designated waste disposal sites;
- iv. Building capacity within Local Authorities to manage municipal solid waste; and
- v. Ensuring institutional financial sustainability.

This report outlines key activities undertaken by ECZ in 2010 as provided for under the Environmental Protection and Pollution Control Act (EPPCA), Cap 204 of the Laws of Zambia.

## 2.0 CORPORATE GOVERNANCE

The Environmental Council of Zambia (ECZ) is an independent environmental regulator and coordinating agency, established through an Act of Parliament, the Environmental Protection and Pollution Control Act of 1990. It is mandated to do all such things as are necessary to protect the environment and control pollution, so as to provide for the health and welfare of persons, animals, plants and the environment. The Council is the governing body of ECZ and provides strategic direction, develops policies approves its work plans and budget as well as monitoring of its functions as it relates to administration of EPPCA. The Council is comprised of:

1. Chairman – Appointed by the Minister
2. 8 Representatives from Government Ministries
3. 3 Representatives from Statutory Bodies
4. 2 Representatives from the private sector
5. 1 representative from an Environmental NGO

The Council performs its functions through four (4) Committees namely:

1. Standing Technical Advisory Committee
2. Projects Approval Committee
3. Finance, Administration and Projects Monitoring Committee
4. Audit committee

### **Standing Technical Advisory Committee**

This committee is responsible for review and approval of all technical reports produced by the institutions. Membership is drawn from various institutions and experts are incorporated when dealing with specific scientific issues. The committee meets quarterly.

### **Projects Approval Committee**

The committee is responsible for review and approval all Environmental Impact Assessments of development projects submitted to Council. The committee meets monthly.

### **Finance, Administration and Projects Monitoring Committee**

This committee is responsible for approving work plans and budget for the institution, oversees administration and monitoring the implementation of all projects administered by the institution. The committee meets quarterly.

### **Audit committee**

The Audit Committee was established by the Council in 2009. This Committee monitors the activities of the Internal Audit Unit and implementation of the Risk and Audit protocol which was adopted in 2009. The committee meets quarterly.

The following policy documents were approved by the Council in 2010:

1. The proposed General and Industrial Waste Management Regulations;
2. The proposed amendments to the Hazardous Waste Management Regulations;
3. The Draft Noise and Vibrations Abatement Standards and Regulations;
4. National Invasive Species Strategy action Plan and Policy Guidelines for Invasive Plant Management in Zambia; and
5. Minimum Technical Guidelines for Waste Disposal Site Selection and Management.

## 3.0 COMPLIANCE MONITORING AND ENFORCEMENT

### 3.1 Legislative Framework and Litigation

ECZ continued the process of amending the EPPCA and its subsidiary legislation to harmonise it with the current environmental situation in the country. This was done with support from the Copperbelt Environment Project (CEP). The process of amending the legislation began in 2006 and in 2009 the proposed amendments were submitted to the Ministry of Tourism, Environment and Natural Resources (MTENR), who in turn submitted the proposed amendment bill to the Ministry of Justice for finalisation.

The amendment bill, Environmental Management Bill 2010, was tabled before Parliament in November 2010 and was expected to be passed during 2011.

### 3.2 Litigation

ECZ issued a total of one hundred and forty seven (147) enforcement notices mainly for failure to obtain licenses and to submit statutory returns. In addition, summary fines were charged for various offences. The offences for which these penalties were charged included:

- i. Poor waste management;
- ii. Failure to obtain pollution control licenses
- iii. Improper labeling of hazardous materials in transit ;
- iv. Illegal importation of chemicals;
- v. Illegal transportation of waste;
- vi. Illegal storage of chemicals;
- vii. Failure to submit statutory returns.

Out of the above offences, the highest numbers of enforcement notices issued were for poor waste management and failure to obtain or renew pollution control licenses.

Further, ECZ handled a total of nine (09) cases in court out of which three (3) were civil and the other six (6) were criminal. The three civil cases were matters in which ECZ had been sued. One was an industrial relations case while the other two related to ECZ statutory obligations.

The criminal prosecutions were for offences relating to:

1. Air pollution,
2. Waste management,
3. Chemical management,
4. Water pollution; and
5. Land degradation

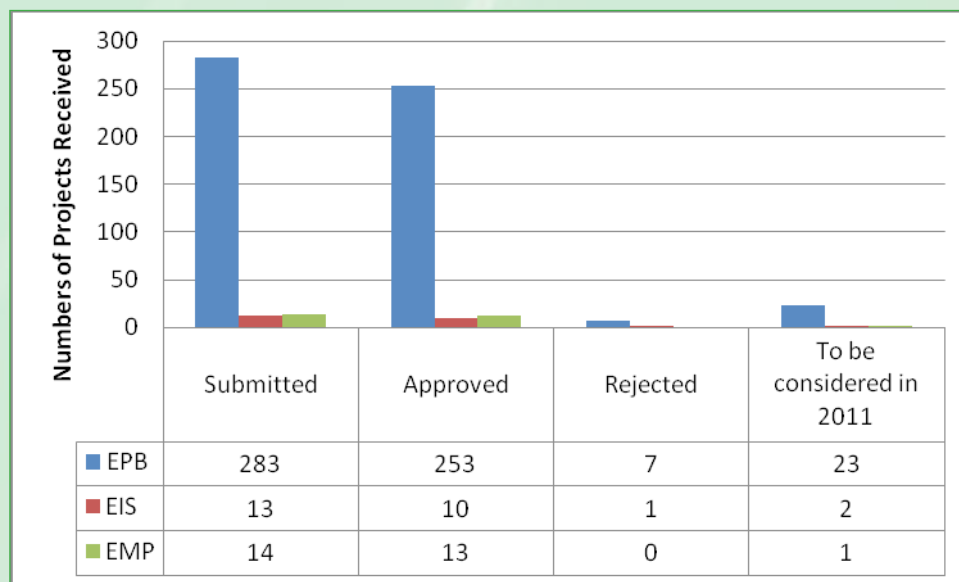
### 3.3 Environmental Impact Assessment

ECZ continued to use EIA as one of the tools in environmental management. The law requires that a would be developer submits an EIA report on their proposed development in the form of either an Environmental Project Brief (EPB) or Environmental Impact Statement (EIS) depending on the nature of the development. An EPB is a report submitted for a project expected to have minimal adverse impacts on the environment whilst an EIS is a report for projects with expected significant impacts. In the year under review, ECZ reviewed a total of 310 EIA documents; 283 were EPBs, 13

were EIS's and 14 Environmental Management Plans(EMPs). Out of these, 253 EPBs, 10 EIS and 13 EMPs were approved whilst seven (07) EPBs and one (01) EIS were rejected as shown in Figure 3.1.

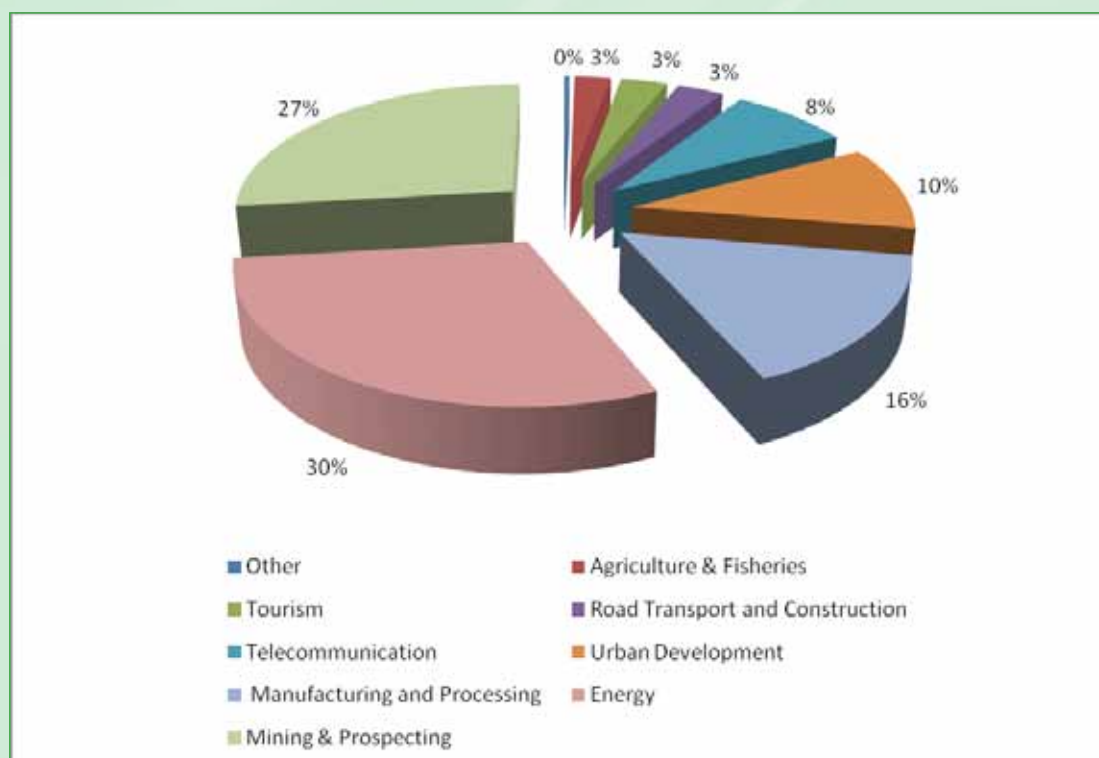
The following were some of the reasons for rejection of the projects:

- i. Unsuitable site for the proposed development;
- ii. Incompatibility of the project with the surrounding environment;
- iii. Negative impacts of the proposed development outweighed the positive impacts and had inadequate mitigation measures; and
- iv. Rejection of projects by communities.



**Figure 3-1: EIA documents Received in 2010**

The majority of the projects submitted were in mining and prospecting followed by energy, and processing and manufacturing. The lowest were in agriculture and fisheries ( figure3.2).



**Figure 3-2: Projects Submitted per Sector in EIA**

The statistics indicate that Copperbelt and Lusaka Provinces recorded the highest number of proposed developmental projects. It was also noted that Northern and Luapula provinces recorded the lowest submission of developmental projects. This is illustrated in Table 3.1

**Table 3-1: Distribution of received EIAs by Province in 2010**

Province	EPB	EIS	EMP	Total
Central	26	2	1	<b>29</b>
Copperbelt	83	3	5	<b>91</b>
Eastern	16	1	0	<b>17</b>
Luapula	12	0	0	<b>12</b>
Lusaka	74	3	5	<b>82</b>
North Western	27	0	0	<b>27</b>
Northern	7	0	0	<b>7</b>
Southern	24	4	3	<b>31</b>
Western	14	0	0	<b>14</b>
<b>Total</b>	<b>283</b>	<b>13</b>	<b>14</b>	<b>310</b>

**Figure 3-3 Pictorial presentation of EIA developmental projects distribution by Province**

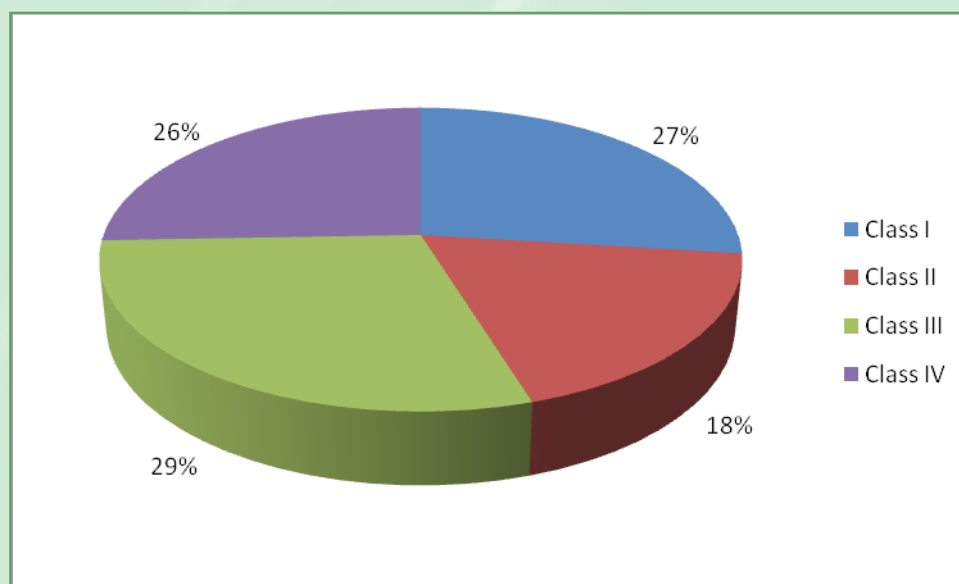
### 3.4 Air Pollution Control

ECZ continued to monitor emissions from both stationary and mobile sources in Zambia. The Air Pollution Control Regulations mandate ECZ to assess the quality of ambient air through licensing and monitoring. In 2009, the institution procured two automatic mobile air quality monitoring stations which were installed at ECZ premises in Lusaka and Ndola. The stations are equipped with continuous automatic analysers for various parameters of air pollutants.

In Zambia, the main sources of atmospheric pollution are industrial activities, motor vehicles, open air burning, burning of wood fuel and bushfires.

### 3.4.1 Air Emission Licenses

ECZ continued to issue air permits to industries that emit air pollutants. A total of 219 permits were issued in 2010, compared to 189 and 206 permits in 2008 and 2009 respectively. The majority of permits issued in 2010 were in class IV which is classified as least polluting potential. This is outlined in Figure 3.4.



**Figure 3-4: Distribution of Air Licenses by Class**

### 3.4.2 State of Ambient Air

The institution has been monitoring the state of ambient air in Lusaka and Ndola using automatic air sampling equipment. The status of the major parameters analysed are described below for the October 2009 to June 2010 period.

#### Sulphur Dioxide

Results obtained in Lusaka indicate low risk to human health or vegetation by Sulphur Dioxide ( $\text{SO}_2$ ). The mean of the hourly values  $5\mu\text{g}/\text{m}^3$  (micrograms per cubic metre) for the period was less than the threshold limit of  $500\mu\text{g}/\text{m}^3$ . In Ndola,  $\text{SO}_2$  concentrations were also low as the mean of the hourly value was  $54\mu\text{g}/\text{m}^3$ . These were considered low and safe to vegetation and ecosystems sustainability.

#### Particulate Matter

During the period under review, the levels of Particulate Matter ( $\text{PM}_{10}$ ), were significantly high in both Lusaka and Ndola. Particulate matter is dust with a small-diameter of  $10\mu$ . Figure 3.5 outlines the  $\text{PM}_{10}$  levels in Ndola between September 2009 and January 2010. Lusaka showed a similar trend. The Zambian and international air quality guidelines ( $50\mu\text{g}/\text{m}^3$ ) were exceeded at both monitoring sites. It was observed that dust concentrations were above threshold in the dry season and below threshold in the wet season.

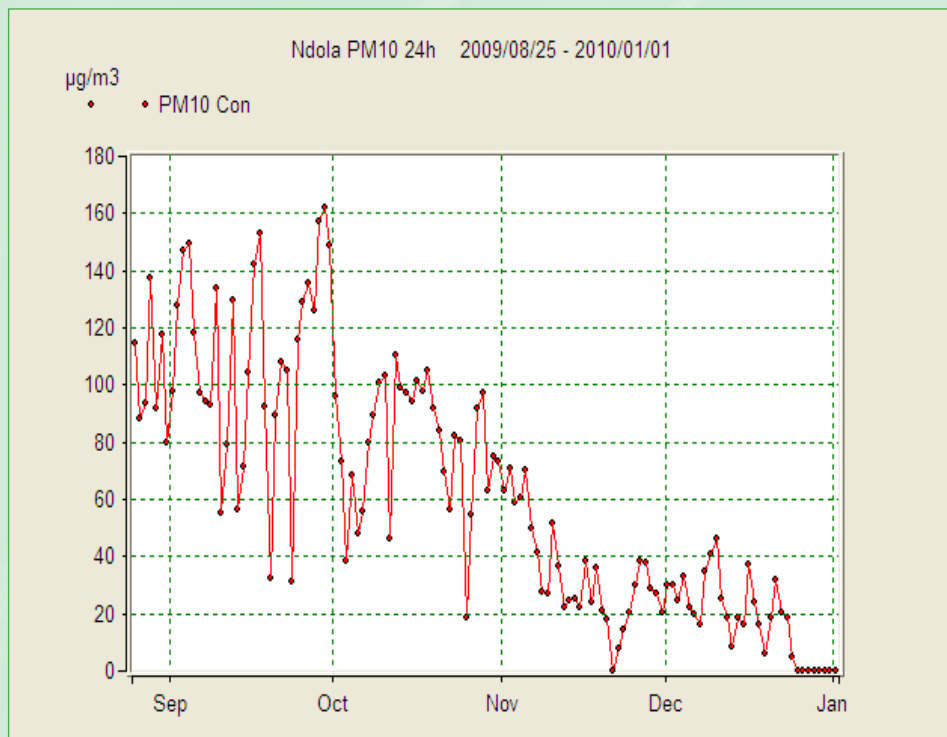
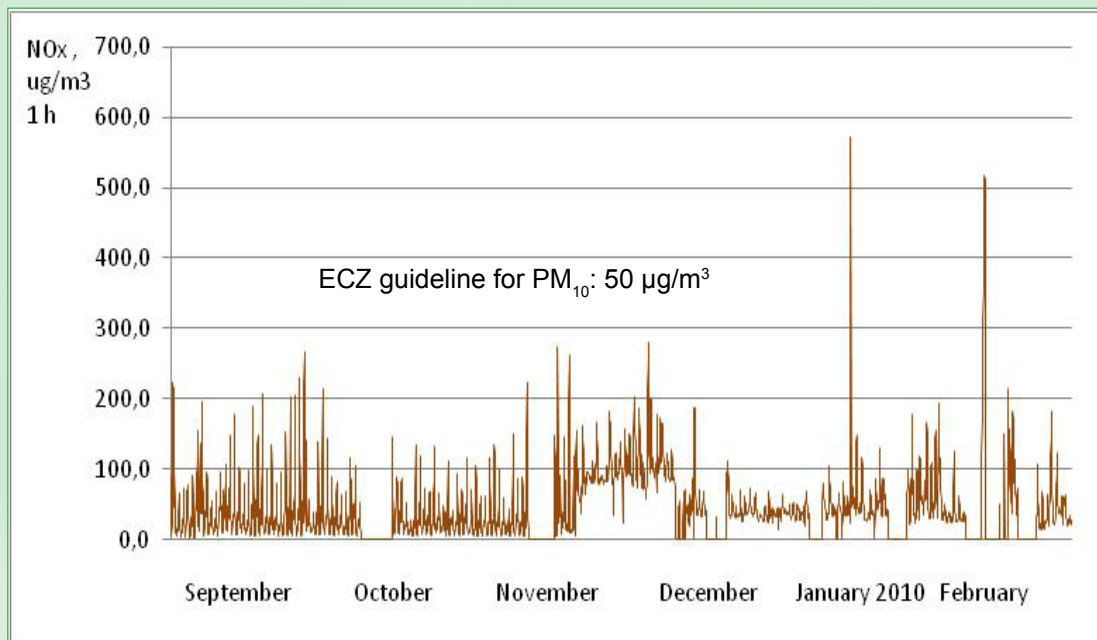


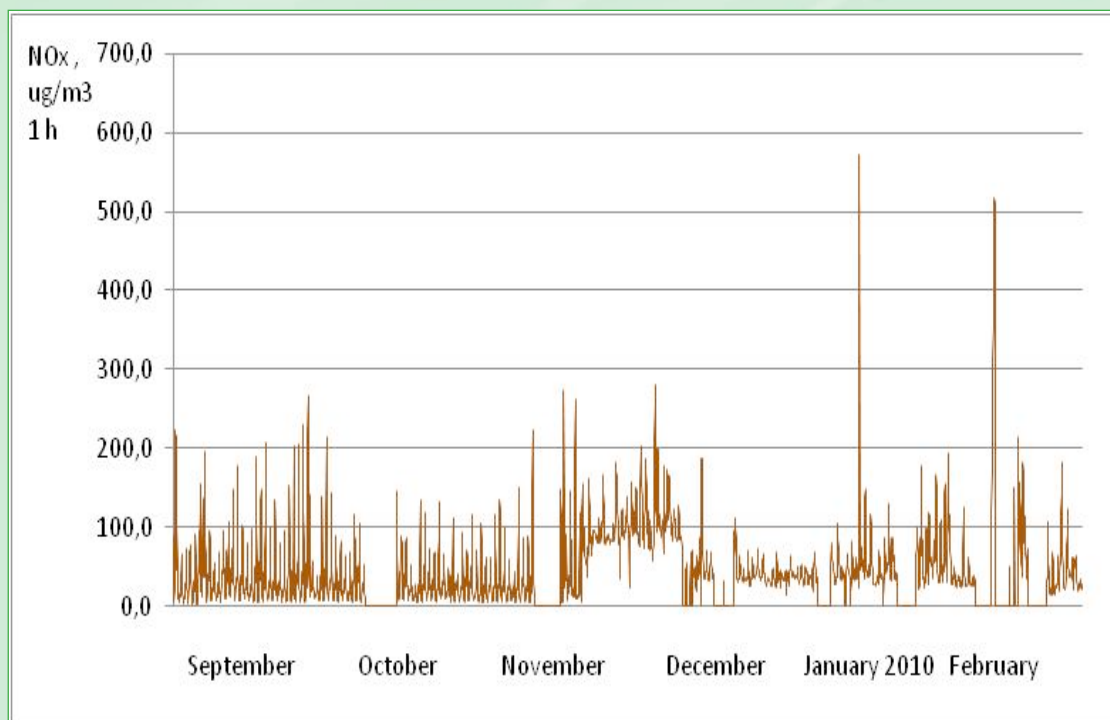
Figure 3-5: Dust, PM10 ( $\mu\text{g}/\text{m}^3$ , 24 h averages), in Ndola

### Nitrogen oxides

The monitoring results in Lusaka indicated that the concentrations of Nitrogen oxides ( $\text{NO}_x$ ) exceeded the national and WHO guidelines ( $200 \mu\text{g}/\text{m}^3/\text{hr}$ ) as presented in figure 3.6

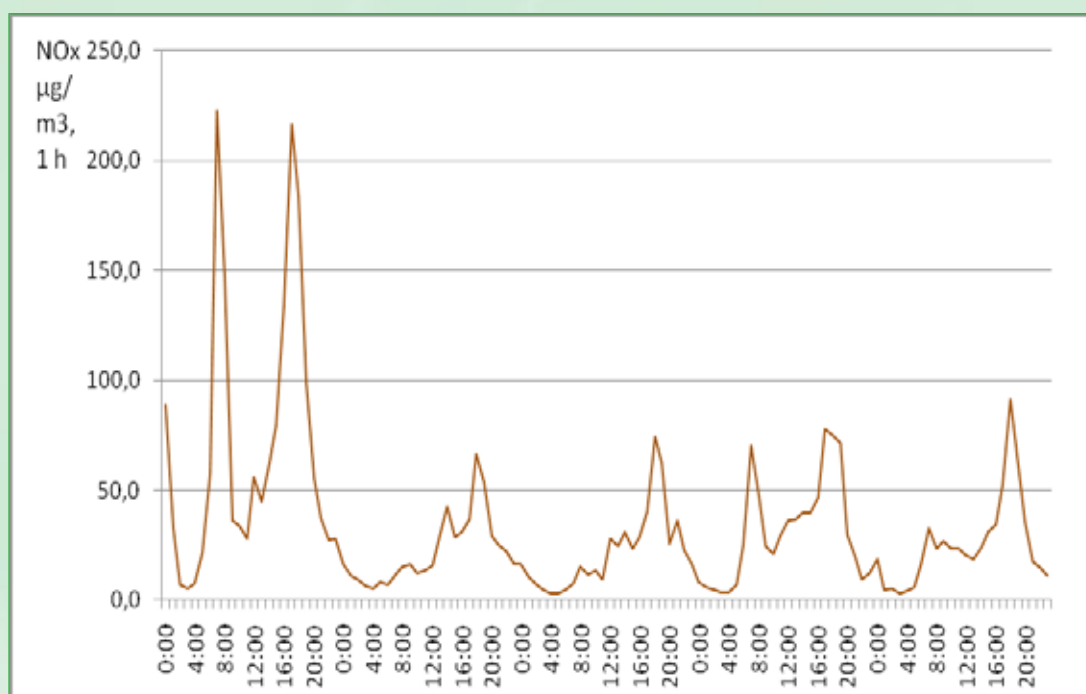


ECZ/WHO Guideline value for Nitrogen oxides)  $200 \mu\text{g}/\text{m}^3$   $\mu\text{g}/\text{m}^3/\text{hr}$  average



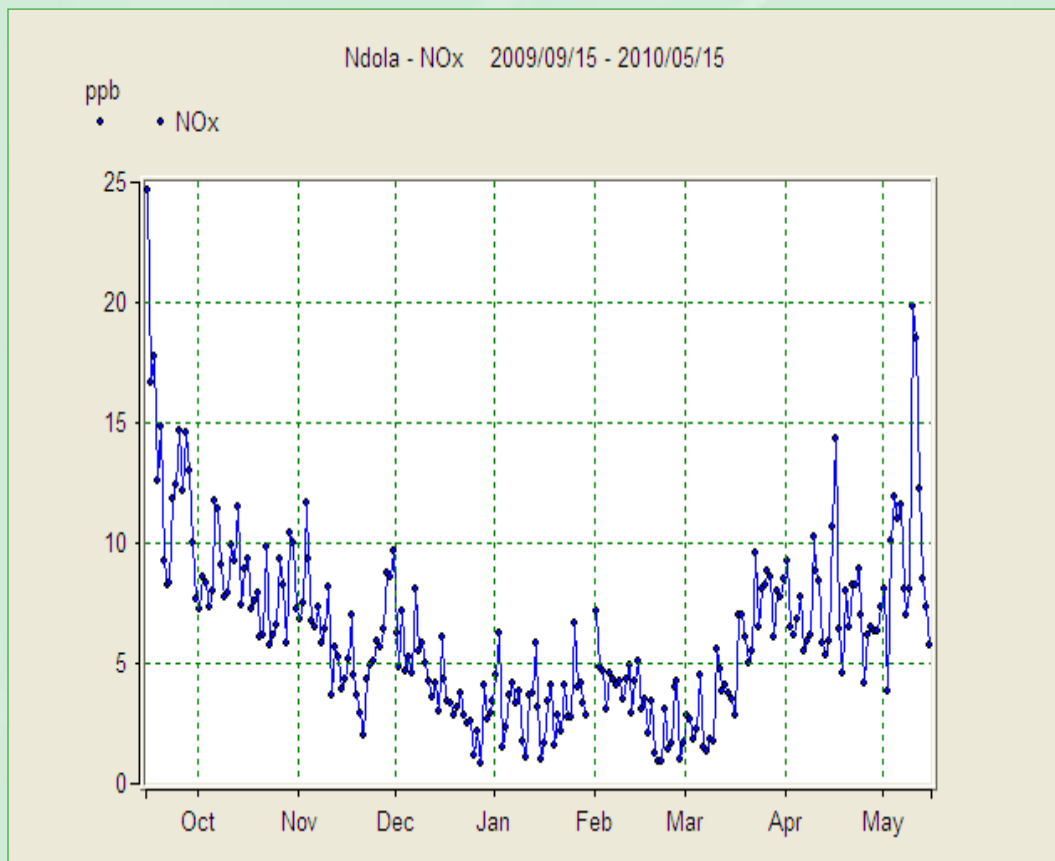
**Figure 3-6: Nitrogen oxides ( $\mu\text{g}/\text{m}^3$ , as  $\text{NO}_2$ ), 1 hr values) in Lusaka**

Further, day and night variation of the NO<sub>x</sub> concentration clearly shows that the situation is mainly caused by emissions from motor vehicles as the concentrations were higher during the morning and late afternoon when the number of vehicles on the roads was higher (Figure 3.7).



**Figure 3-7: Average NO<sub>x</sub> concentration.**

In Ndola the observed 24 hour averages of nitrogen oxides were relatively low and varied between 4 - 50  $\mu\text{g}/\text{m}^3$ , as shown in figure 3.8. This indicated that nitrogen oxides were not an air pollution problem in Ndola, as the Zambian air quality guideline for 24 hour average is 150 $\mu\text{g}/\text{m}^3$



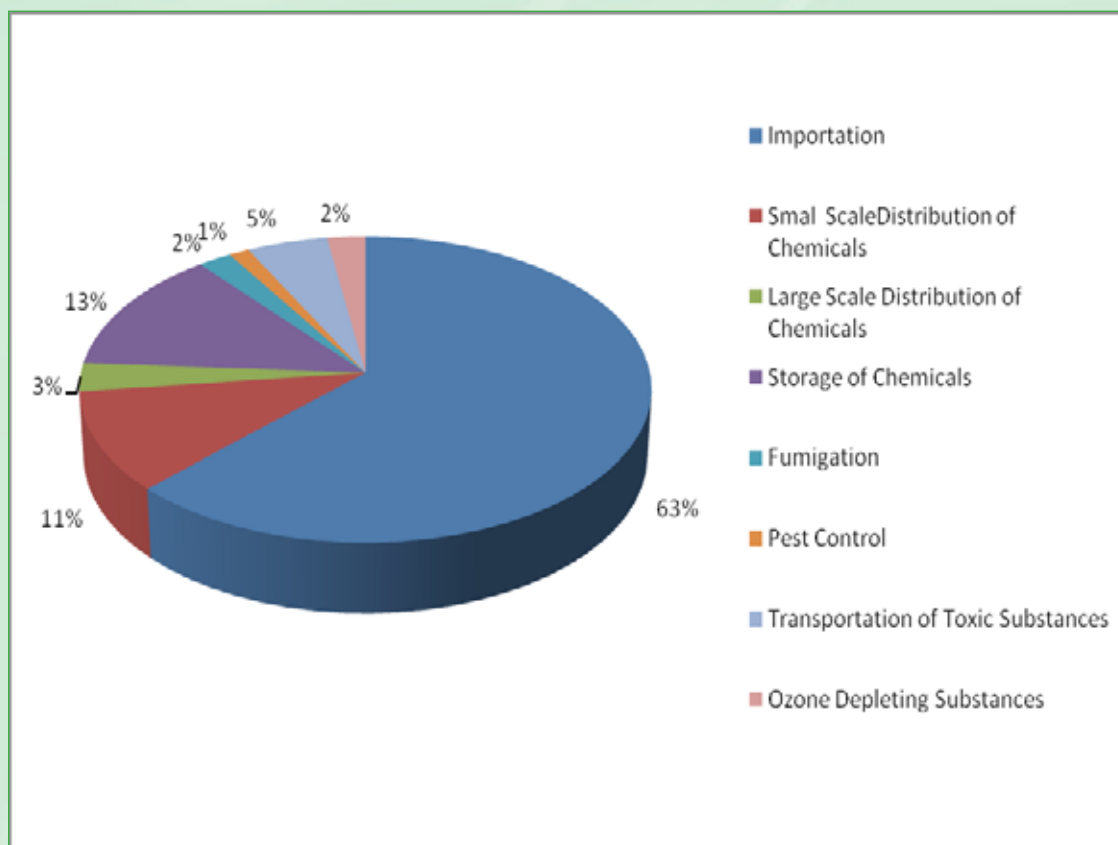
**Figure 3-8: Nitrogen oxides (as NO<sub>2</sub>), in Ndola**

### 3.5 Chemical Management

In order to ensure environmentally sound management of chemicals in Zambia, ECZ is mandated to regulate the use, storage, importation and exportation of Pesticides and Toxic Substances (PTS). This is mainly achieved through licensing of manufacturers, distributors, dealers, transporters, sellers, users and those involved in advertisements, packaging and labelling of PTS.

#### 3.5.1 Pesticides and Toxic Substances Licences

In the period under review, a total of 2,129 PTS licences were issued. The largest number of licences was for importation of chemicals (63%) as shown in Figure 3.9.



**Figure 3-9: Number and Categories of Licenses issued for PTS**

The majority of the chemicals used in Zambia are imported. In this regard, ECZ continued to monitor the flow of chemicals in the country. One of the ways ECZ regulates the chemical industry is through monitoring chemicals at points of entry. Tables 3.2 and 3.3 show the quantities of PTS imported through Chirundu border from 2007 to 2010.

**Table 3-2: Quantities in Tonnes of PTS imported via Chirundu from 2007 to 2010**

Type of chemical	2007	2008	2009	2010
Herbicides	1,442.384	211.506	328.328	501.160
Insecticides	545.481	225.000	126.053	370.553
Fungicides	87.685	48.277	52.890	134.862
Fertilizers	8,264.586	17,136.302	28,243.131	29,994.673
Industrial Chemicals	11,208.168	13,392.421	17,444.416	34,615.257
Disinfectants	0	76.011	45.547	62.356
Acaricides	0	0	5,305	0
Rodenticide	0	0	60	0
ODS( refrigerant)	0	0	18762	0
Laboratory Chemicals	0	0	-	101
<b>Approximate Grand Total</b>	<b>21,548.304</b>	<b>31,089.517</b>	<b>45,810.111</b>	<b>65,678.962</b>

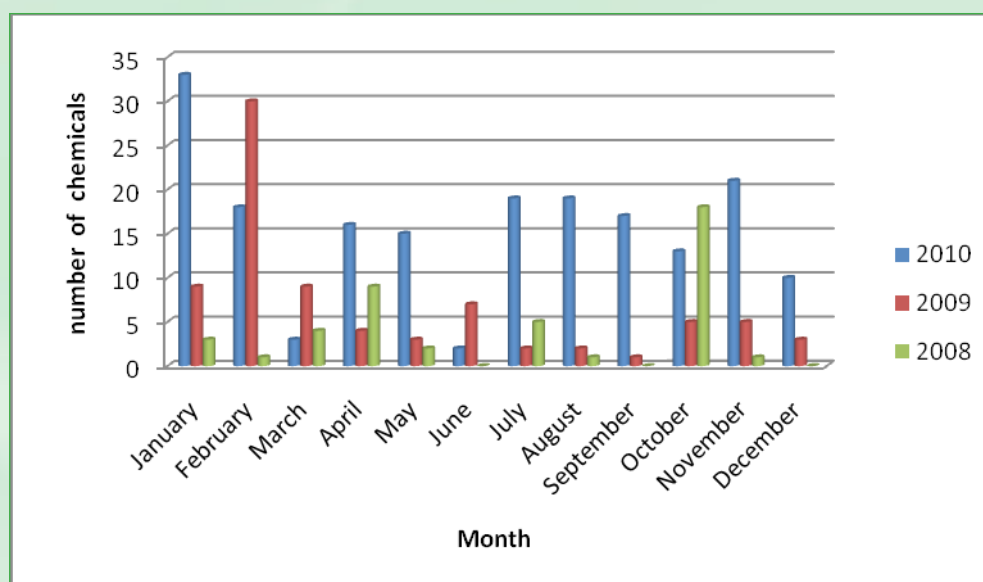
**Table 3-3: Quantities in Litres of PTS imported via Chirundu from 2007 to 2010**

Type of chemical	2007	2008	2009	2010
Herbicides	100,841.50	126,640	63,020	108750.5
Insecticides	87,226.50	312,044	73,121	36023
Fungicides	6,000	18,064	8,375	820
Fertilizers	98,371	3,150	0	0
Industrial Chemicals	984,760	765,341	2,601,009	5
Disinfectants	0	39220	3,100	430
Acaricides	0	0	200	0
Rodenticide	0	0	0	0
ODS( refrigerant)	0	0	0	0
Laboratory Chemicals	0	0	0	0
<b>Approximate Grand Total</b>	<b>1,277,199</b>	<b>1,264,459</b>	<b>2,748,825</b>	<b>146,028.5</b>

It can be noted from table 3.2, that there has been a steady increase of chemical importation from 21,548 tonnes in 2007 to 65,678 tonnes in 2010. During the year under review, the major chemicals imported were industrial chemicals. This could be attributed to new mines being opened up and increase in other industrial activities.

Due to increased demand in chemicals, there has been an increase in the importation of chemicals. However, some of these chemicals are imported illegally. ECZ has increased its monitoring activities at the points of entry.

As a result of the border control activities, there has been a significant reduction in the illegally imported chemicals from 186 in 2008, 80 in 2009 and 44 in 2010 as shown in figure 3.10. Between, 2009 and 2010, the reduction was 45%.



**Figure 3-10: Illegally imported chemicals impounded between 2008- 2010**

Despite reduction in illegal importation, there has been an increase in illegal transportation of chemicals due to use of unlicensed transporters. During the period under review, 54 vehicles were impounded for illegal transportation compared to 28 in 2009. Most of the impounded vehicles belonged to foreign transporters.

### 3.6 Environmental Emergencies

ECZ received and responded to a total of 19 emergencies in 2010 under different categories as indicated in figure 3.11. Fuel spillages during transportation continued to be the major type of environmental emergency which accounted for 37%.

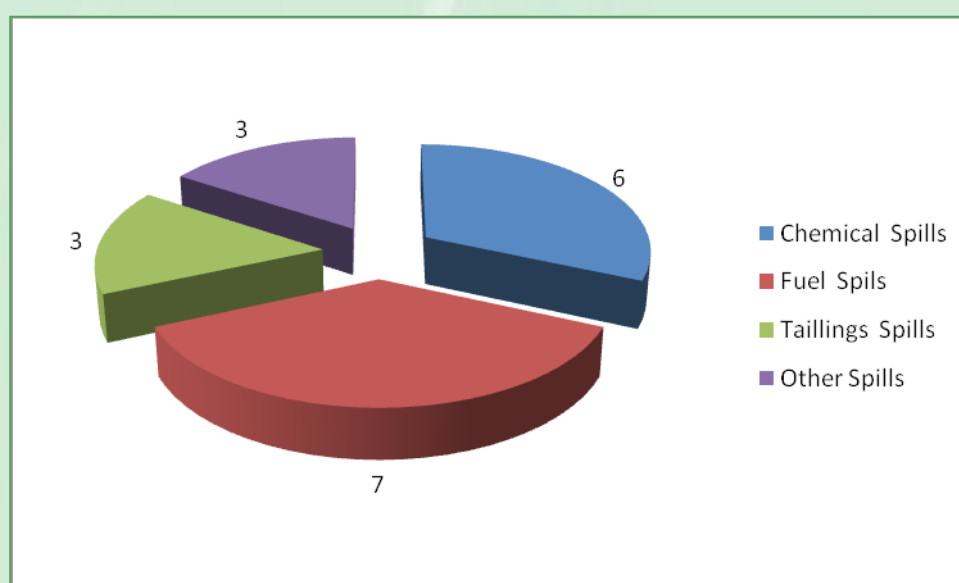


Figure 3-11: Number of Emergencies responded to in 2010

In order to improve response to environmental emergencies, various consultative meetings with stakeholders were held. Emergency preparedness teams comprising key stakeholders were enhanced during the year through training.

### 3.7 Ozone Depleting Substances

Zambia is party to the Montreal Protocol which demands a steady reduction in the use of Ozone Depleting Substances (ODS). During the period under review, Zambia successfully complied with the phase out of Chlorofluorocarbons (CFC12) under the Montreal protocol. Further, a total of 51 licenses were issued for importation and distribution of ODS.

In order to build capacity in the management of ODS, the following activities were undertaken:

- i) Training of Customs Officers on the control of ODS at ports of entry into Zambia
- ii) Training of Refrigeration Technicians in sound refrigeration gas management
- iii) Provision of equipment for use in Retrofitting Centres in Zambia.
- iv) Consultation with stakeholders on the draft Hydrochlorofluorocarbon Phase-out Management Plan (HPMP).
- v) Training of stakeholders in tobacco, post harvest, floriculture and horticulture sectors on the phase-out of methyl bromide in Zambia.

The consumption of ODS in the country for the period 2005 to 2010 is indicated figure 3.12.



**Figure 3-12: Total Consumption of ODS in Zambia from 2005 to 2010**

The figure above shows a downward trend in the consumption of ODS in the country. As can be noted, CFC12 has been phased out and there has been a steady reduction in the consumption of Methyl Bromide which is expected to be completely phased out by 2015 (figure 3.12).

### **3.8 Enabling Activities for the Preparation of Zambia's Second National Communication to the United Nations Framework Convention on Climate Change**

The project "Enabling Activities for the Preparation of Zambia's Second National Communication to the United Nations Framework Convention on Climate Change (UNFCCC) Secretariat" was implemented by the Environmental Council of Zambia (ECZ), funded by GEF/UNDP at a total cost of US\$ 455, 000. It commenced in 2007 and was completed in 2010.

The objectives of the project were:

- To enhance the national capacities and raise awareness on climate change issues;
- To contribute to putting climate change issues higher on the national agenda through strengthened cooperation and coordination of activities addressing the issues of climate change; and
- To prepare Zambia's SNC to the COP of the UNFCCC.

The major activities for the project were (i) inventory of greenhouse gas (GHG) emissions, (ii) assessment of potential impacts of climate change on the most vulnerable sectors, (iii) analysis of potential measures to abate increase of GHG's and (d) capacity development for reporting on climate change.

In addition, key stakeholders were trained in Greenhouse Gas Inventories preparation. The training was meant to provide basic understanding of GHG Inventory preparation and challenges faced.

### **3.9 Mainstreaming Sound Management of Chemicals Issues into MDG-Based National Development Planning**

The project “Mainstreaming Sound Management of Chemicals Issues into MDG-based National Development Planning” aimed to support Zambia in incorporating the Sound Management of Chemicals (SMC) in planning and implementation of development initiatives using a set of guidelines developed by the UNDP as well as to support the country in capacity development for SMC through: (i) qualification of the links between priority major chemical management problem areas and human health and environmental quality, (ii) identifying areas of the national SMC governance regime that needed strengthening, (iii) development of a realistic phased plan for strengthening the national SMC governance regime, (iv) assistance to quantify the costs of inaction/benefits of action in planning/finance/economic language regarding a major chemical management problem area, and (v) propose a path forward for the country to mainstream the highest priority SMC issues in the country’s MDG-based development planning.

Project was funded by KemL- Swedish Chemicals Inspectorate/ UNDP at a cost of US\$198,420 from November 2007 to March 2010.

The project undertook a Cost Benefit Economic Analysis on chemical pollution on Kafue River Basin. The results showed that poor management of chemicals has negative economic impacts on both household and national resources. The findings of the study were discussed at an Interagency Coordinating Mechanism (ICM) meeting

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### 3.10 Waste Management

Waste management operations were carried out within the framework of the EPPCA specifically part VI of the Act which provides for the sound management of waste to ensure protection of the environment and human life.

Management of waste continued to pose a challenge due to limited capacity among local authorities and other key stakeholders. There has been an increase in the total number of districts with licensed disposal sites over the years from 16 in 2005 to 54 in 2010 out of a total of 72 districts as shown in figure 3.13. Despite this increase in the number of districts with disposal sites the disposal sites were not well managed.

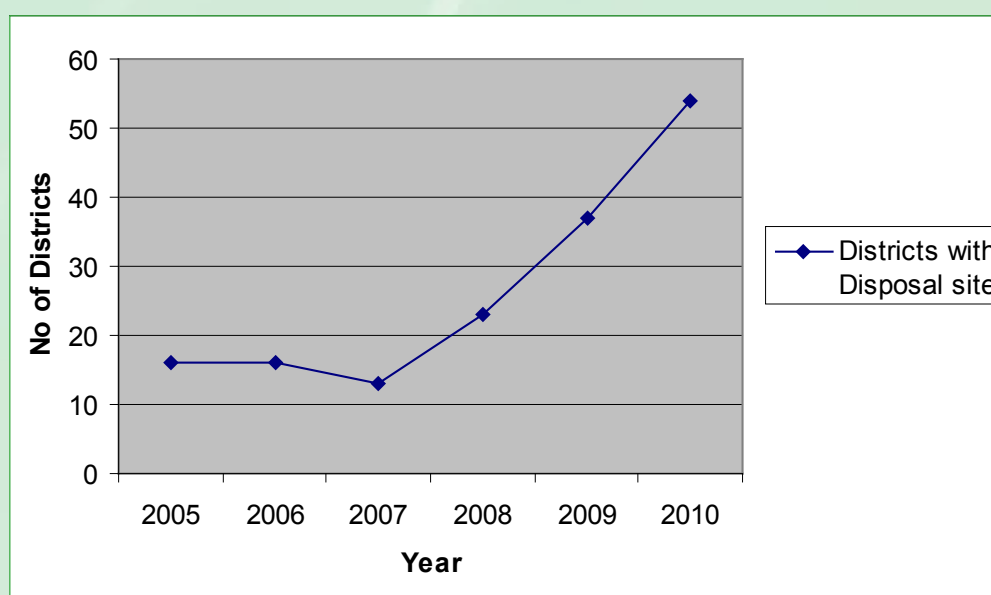


Figure 3-13: Total number of Districts with Disposal Sites

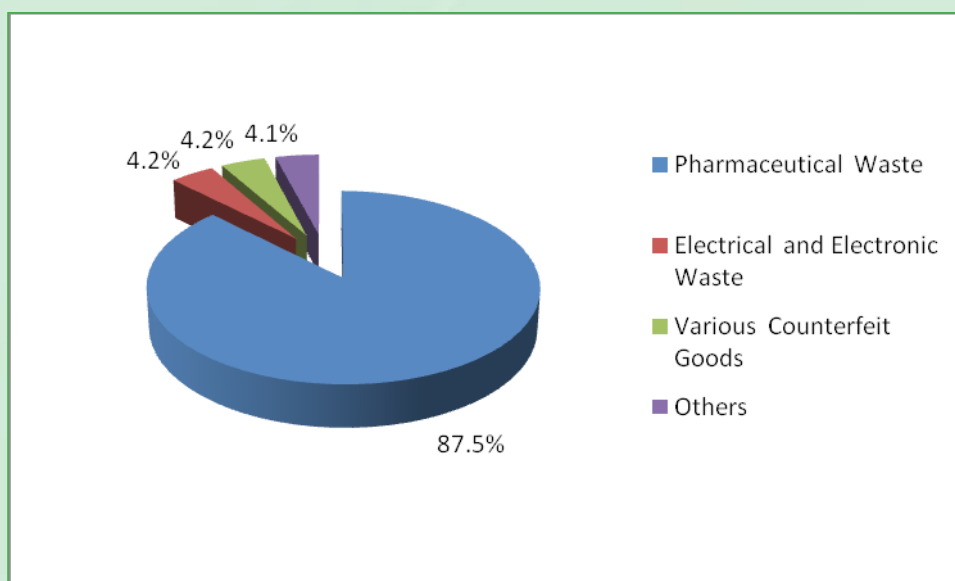
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To monitor and control waste management, ECZ issued a total of 940 licenses in 2010 compared to 844 licenses issued in 2009 as outlined in table 3.4.

**Table 3-4: Comparison of Licenses Issued between 2009 and 2010**

Type of Licenses	Licenses Issued	
	2010	2009
Non Hazardous solid waste disposal sites	181	166
Transportation of non Hazardous solid Waste	246	244
Transportation of Hazardous Waste	73	82
Generation of Hazardous Waste	188	176
Storage of Hazardous waste	174	154
Hazardous Waste Disposal site	36	18
Certificate of Disposal	33	0
Export H/Waste	3	2
Pre-treat H/Waste	6	2
<b>Total</b>	<b>940</b>	<b>844</b>

ECZ also provided guidance in the disposal of obsolete, counterfeit and expired goods. The majority of the items disposed of were pharmaceutical products accounting for 87.5%. Others were electrical and electronic waste and various counterfeit goods as shown in Figure 3. 14.



**Figure 3-14: Distribution of Disposal Certificates**

Collection of waste by various Local Authorities still remains a challenge. Collection in most local authorities was below 20% with the exception of Mazabuka which recorded collection rate of over 40% Figure 3. 15



Figure 3-15: Waste Collection Percentage for selection Rate

### 3.11 Water Pollution Control

ECZ regulates the discharge of effluent into the open and aquatic environment in order to safeguard the quality of water. In 2010 there were a total of 243 discharge points licensed compared to 180 in 2009. These were mainly from mining, manufacturing, sewerage treatment facilities, abattoirs, agriculture and energy industries.

#### 3.11.1 Effluent quality for sewerage works Water Utility Companies

The management of sewerage works by water utility companies has been a source of concern over the years. Effluent from these facilities has been well above ECZ limits as most facilities do not adequately treat their effluent. Figure 3.16 and Figure 3.17 below present the status of effluent from selected sewerage treatment facilities in Lusaka. This reflects the typical results which would be obtained from any sewerage treatment facility in the country.

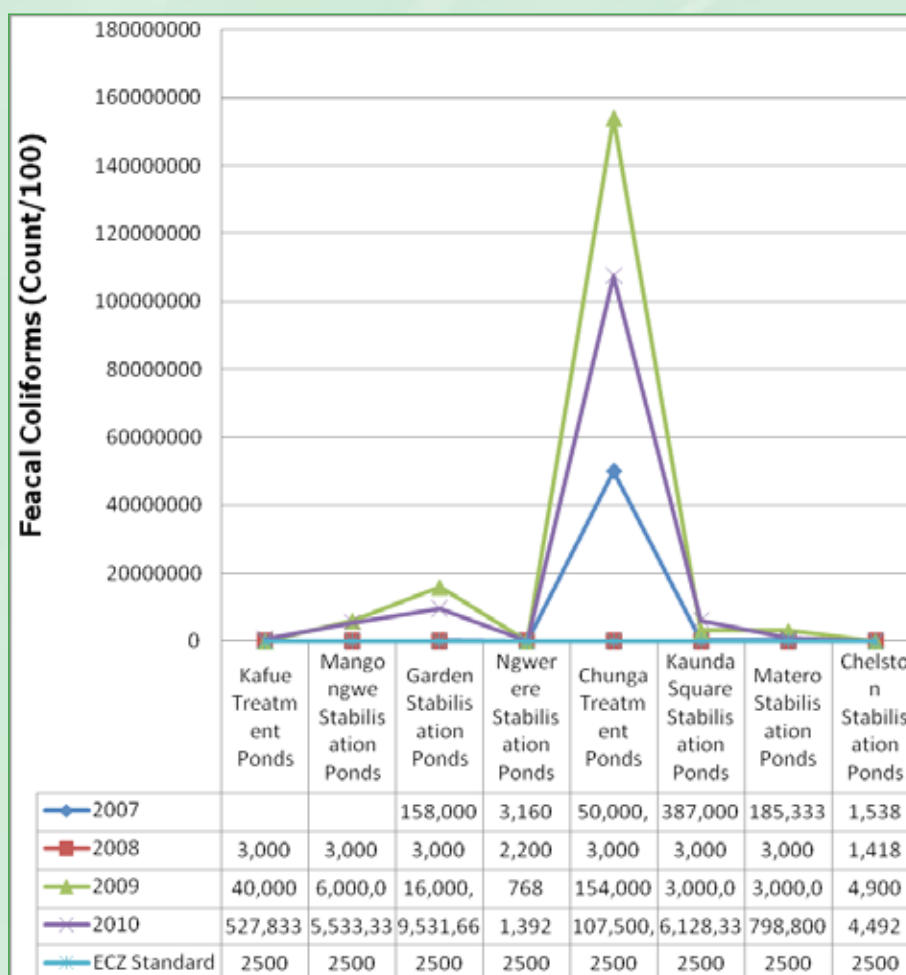


Figure 3-16: Trend Analysis of Faecal Coliforms from 2007 to 2010 for selected stabilization ponds in Lusaka

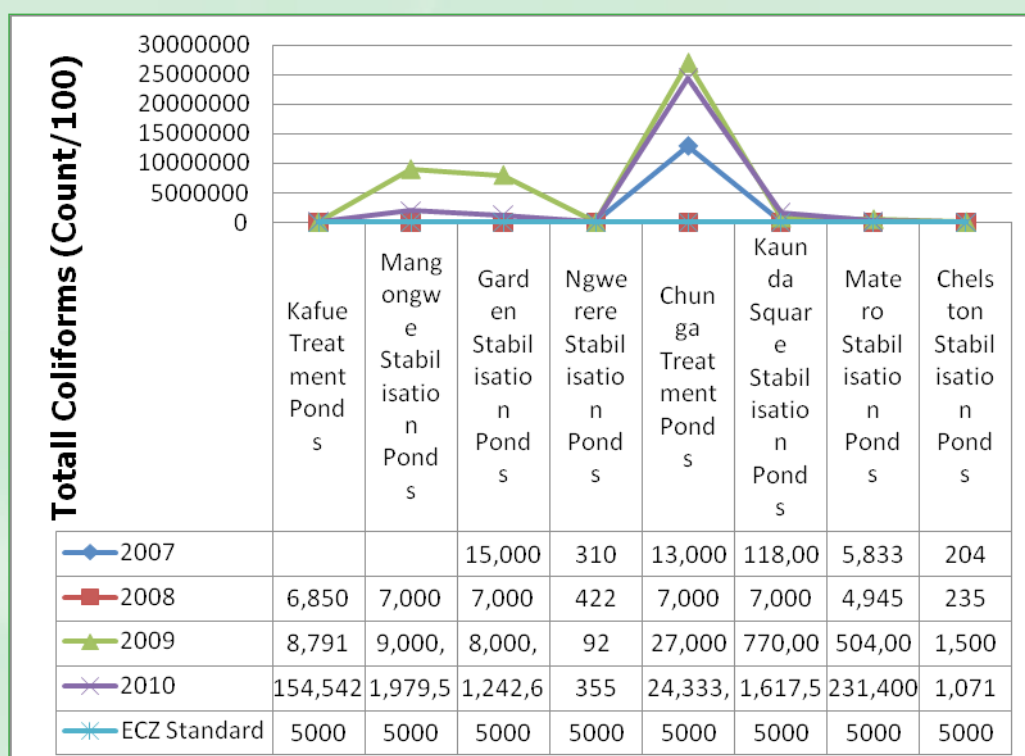


Figure 3-17: Trend Analysis of Total Coliforms from 2007 to 2010 for selected stabilization ponds in Lusaka

Based on the above figures it can be seen that both Faecal Coliforms and Total Coliforms have been above the ECZ Standard all the years sampled except for 2008.

The quality of effluent discharged into the Kafue from Water and Sewerage facilities is generally above ECZ standards in bacteriological parameters namely Faecal and Total Coliforms. The source of Biological water pollution on the Copperbelt was from water utility Sewerage works namely at Raglan 4000 mg/l and Smith Bridge 7500 mg/l.

### 3.11.2 Water Quality Sampling Results for Kafue River

Over the years, ECZ has been conducting water sampling along Kafue River to determine the quality of water. The Kafue river basin hosts most of the industrial and mining activities in the country. Further, most of the population is concentrated along the Kafue river basin.

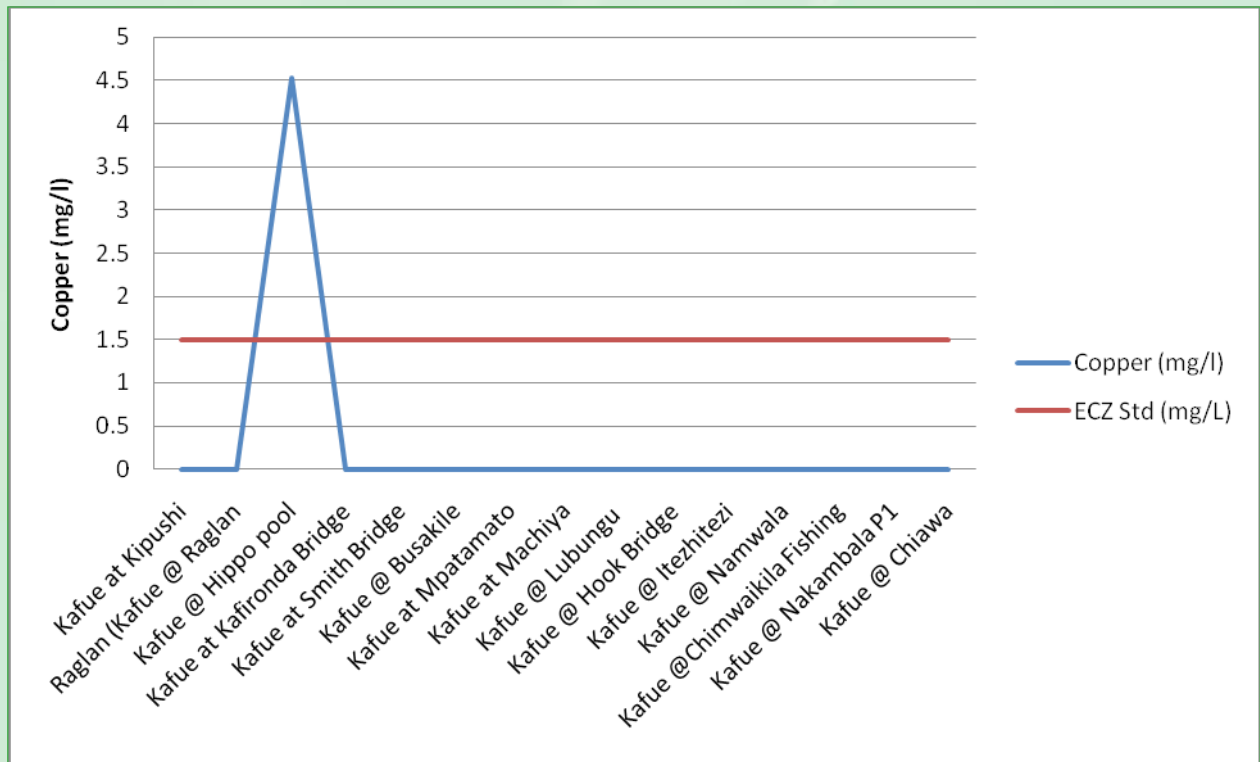
The term *water quality* is used to describe the physical, chemical, biological and aesthetic properties of water that determine its fitness for a variety of uses and for the protection of the health and integrity of aquatic ecosystems.

A number of industries in various sectors such as agriculture, mining, water utility companies and manufacturing among others discharge their effluent directly or indirectly into the Kafue River as well as using it as source of water. Figure 3.18 shows the Kafue river water quality monitoring network map

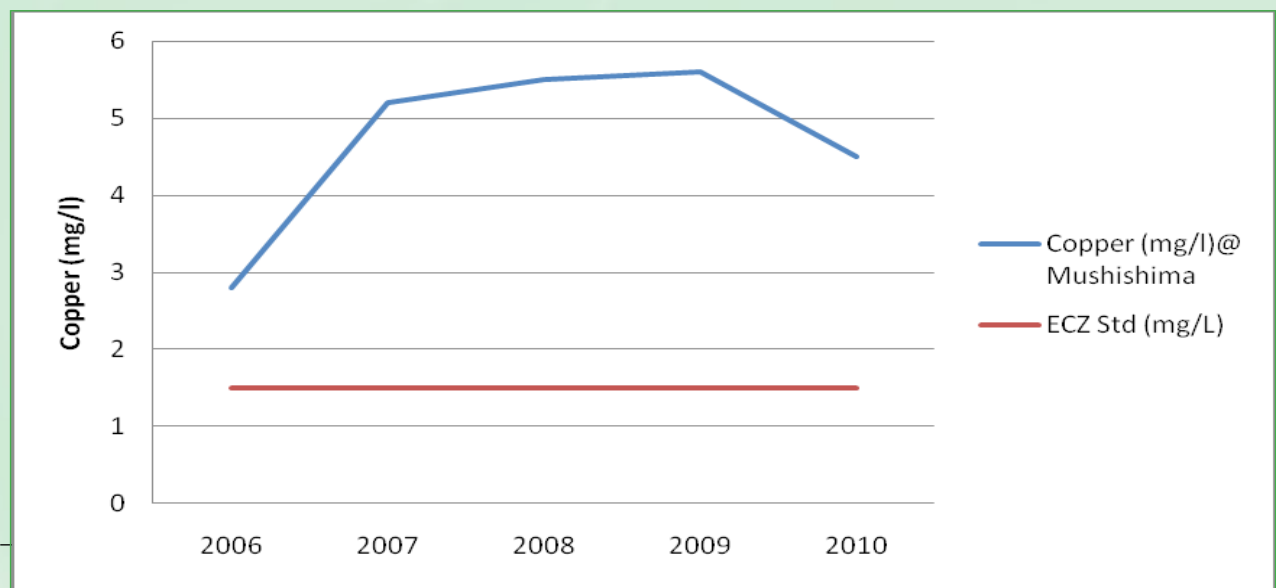


Figure 3-18: Kafue river water quality monitoring Network map

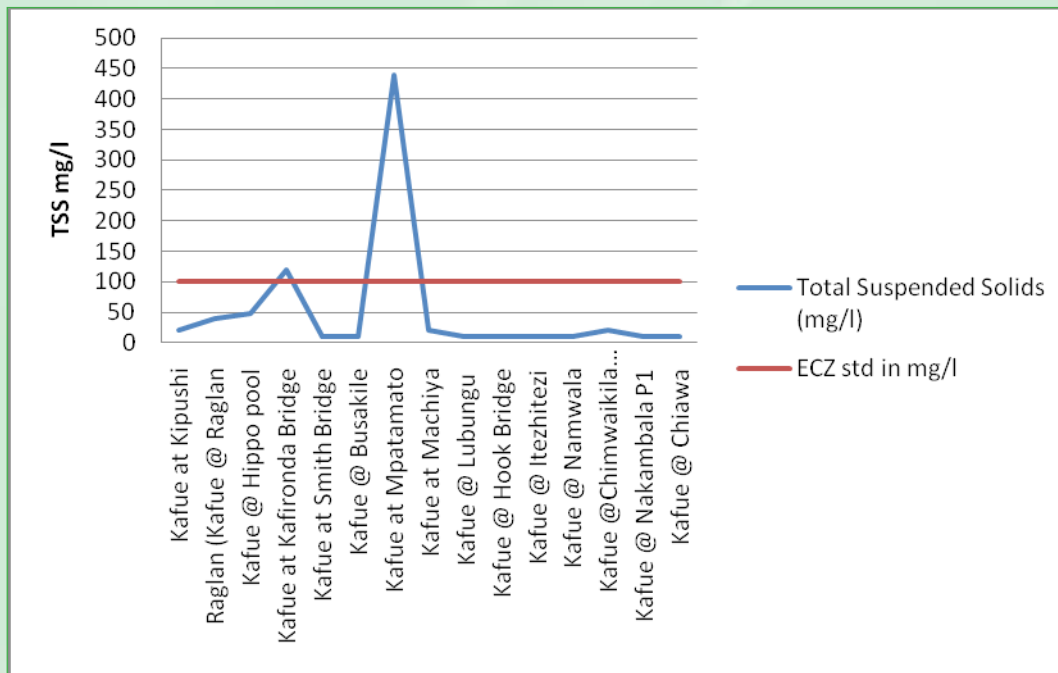
The results of key parameters for the Kafue River monitoring status are presented in the figures below.



**Figure 3-19: Copper Concentration at Various Sampling Points along Kafue River**



**Figure 3-20: Trend Analysis of Copper at Mushishima stream upstream of Hippo Pool on the Kafue River**



**Figure 3-21: Total Suspended Solids (TSS) for 2010 at Various Sampling Points along the Kafue River**



**Figure 3-22: Trend Analysis of TSS at Mushishima for the years 2006 to 2010**

Figures 3.19 to 3.22 above show the parameters in upper Kafue compared to ECZ limits. Copper and Total Suspended Solids were generally outside the set limits thereby impacting on the quality of water. The high Copper levels noticed at Mushishima in Figure 3.19 can be attributed to mining activities in and around Chingola. The trend analysis (Figure 3.20) confirms that Copper levels discharged into the upper Kafue from the mining industry have been above the ECZ set Standard over the years. Similarly the high TSS values at Mushishima stream (Figure 3.21), as well as the trends shown in Figure 3.22 can equally be attributed to effluent discharge from mining activities.

The study has revealed that the Kafue River is constantly under stress from human based activities and showed that the water quality varied throughout its stretch. The copperbelt is particularly affected by mining activities in upper Kafue. The other discharge points in the middle course of Kafue River are drains from manufacturing facilities. The other diffuse sources agricultural activities contribute to the pollution through runoffs into the river.

### 2.11.2 Water quality sampling results for Ngwerere river

The main objective of this exercise was to establish the status of the water quality of the Chongwe River and its tributaries namely; the Ngwerere and Chalimbana rivers which receive effluent from Lusaka

The main findings and discussions are presented in figures 3.23 to 3.25.

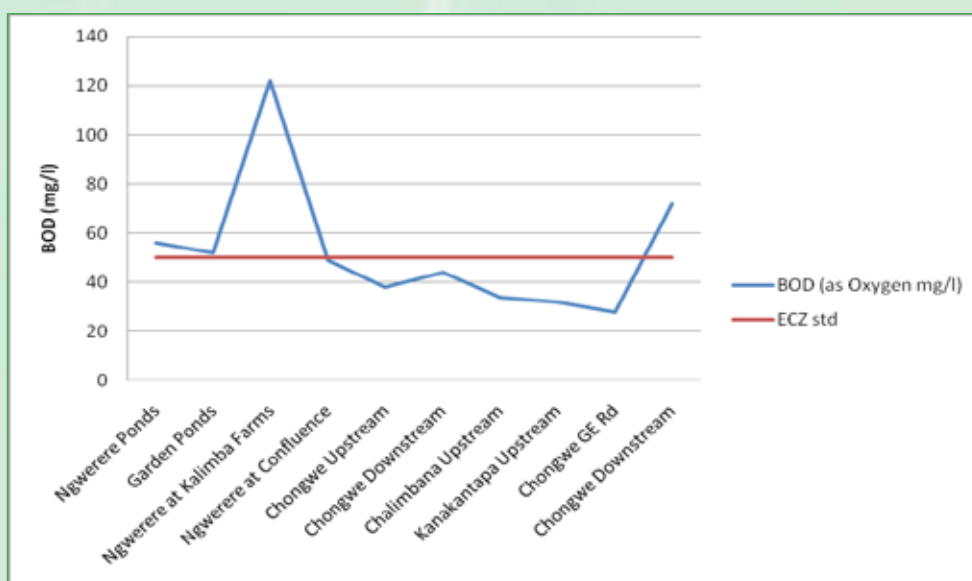


Figure 3-23: Biological Oxygen Demand at Various Sampling Points of the Chongwe River System

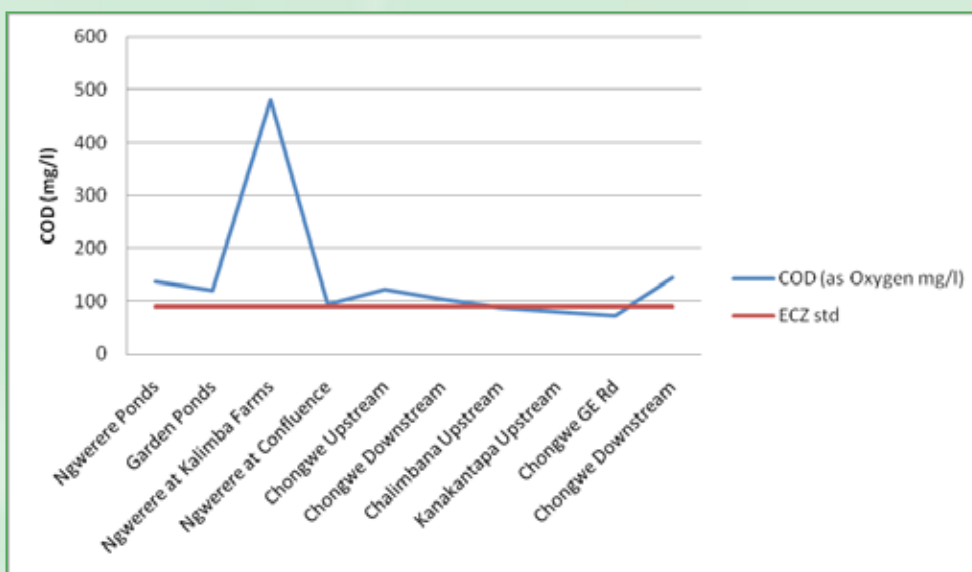
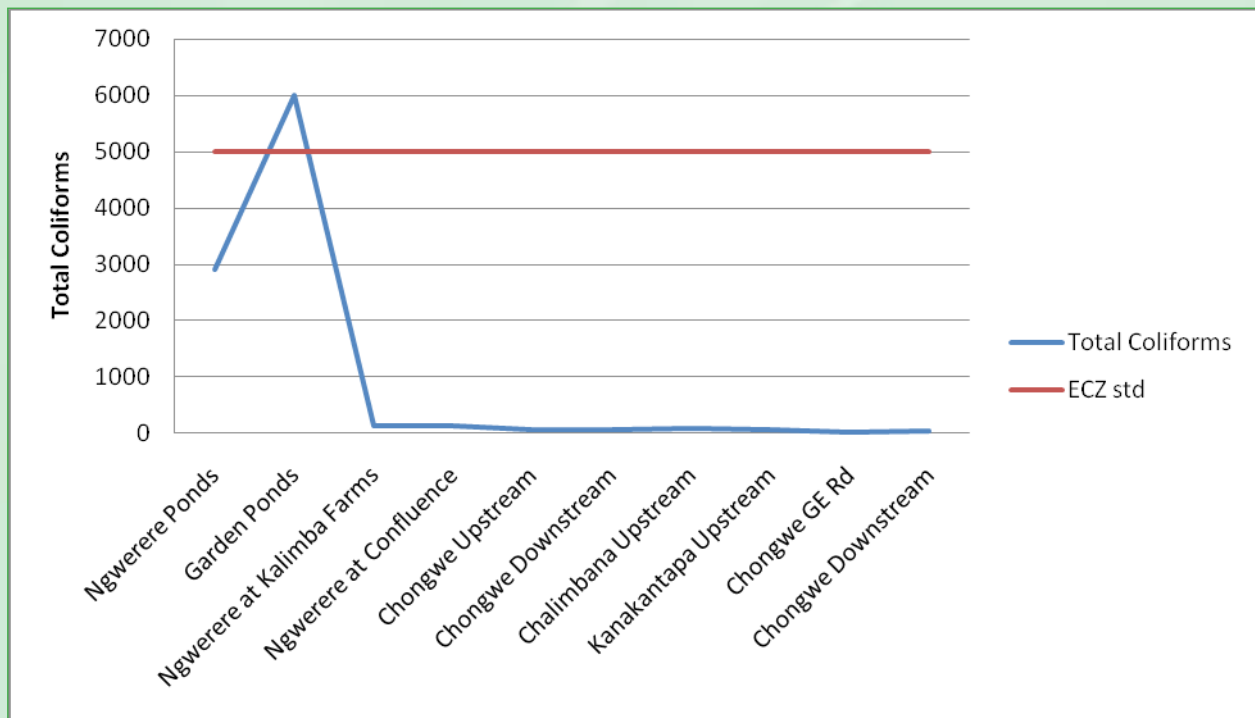


Figure 3-24: Chemical Oxygen Demand at Various Sampling Points of the Chongwe River System

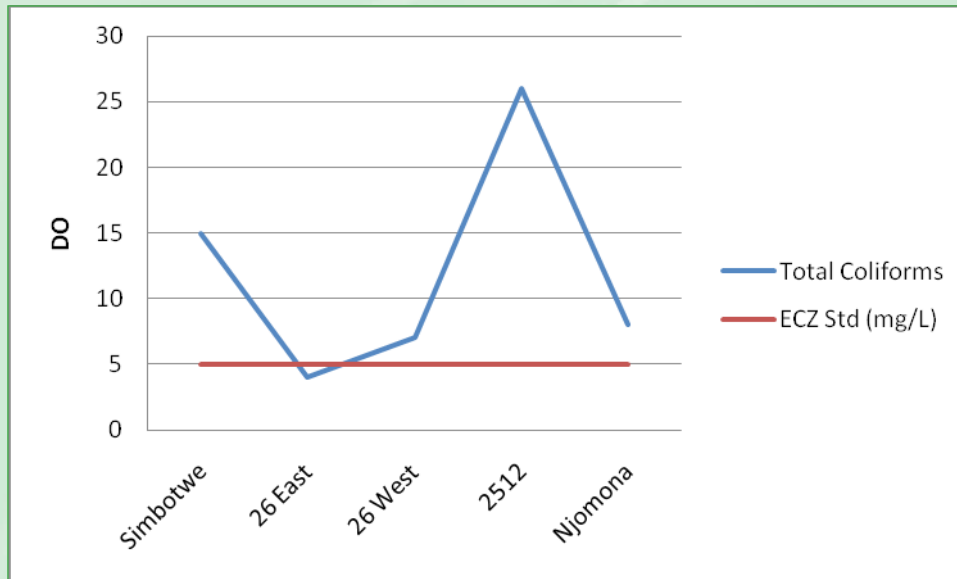


**Figure 3-25: Faecal Coliforms at Various Sampling Points of the Chongwe River System**

Figures 3.23, 3.24 and 3.25 above show that there are critical parameters which are above the ECZ set standard. These are BOD, COD, Faecal Coliforms and Total Coliforms. The results observed in Figures 3.23 and 3.24 can be directly attributed to untreated effluent from industrial and sewerage sources. Similarly the high BOD and COD values at Ngwerere and Garden Ponds (figure 3.23 and 3.25) can equally be attributed to them receiving partially treated effluent high in faecal coliforms

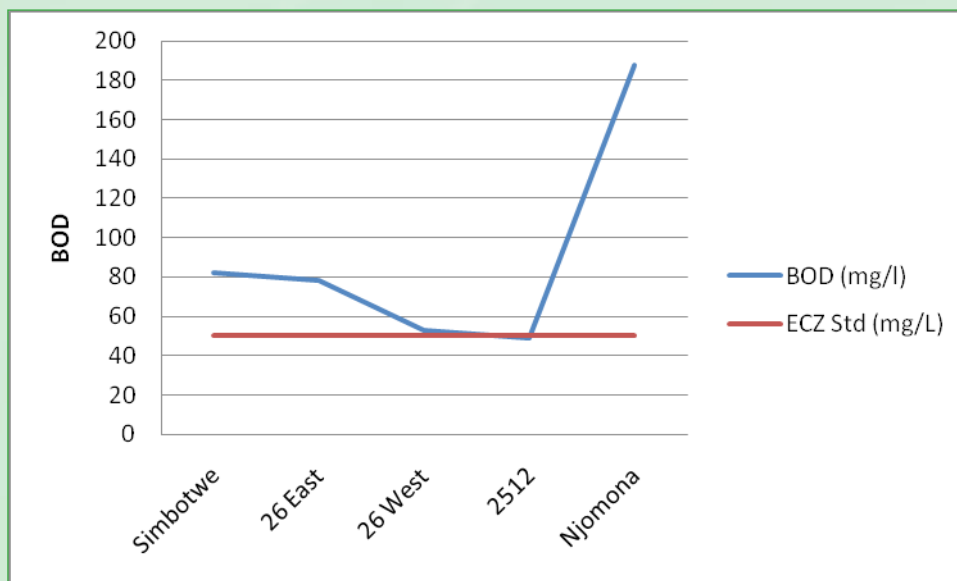
1.1.3

**Effluent monitoring results from Sugar industry in Mazabuka**

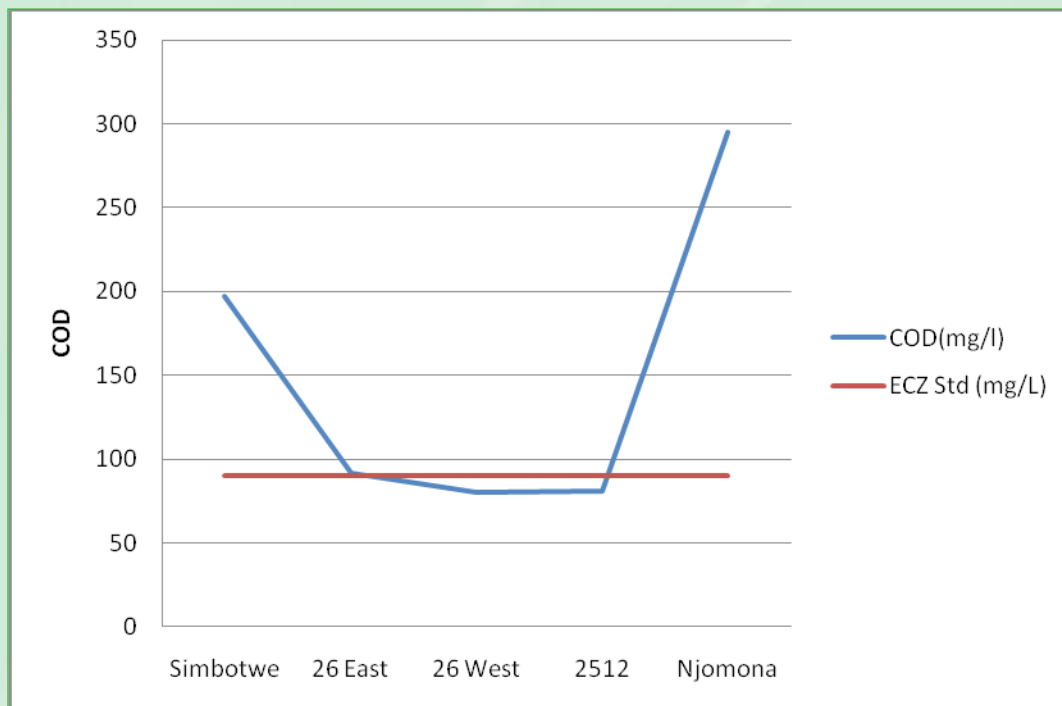


**Figure 3-26: Effluent discharge at selected points along Kaleya Stream in Mazabuka**

N.B: The points 26 East, 26 West and 2512 in above figure are also sampling points along Kaleya stream which finally discharges into the Kafue River in Mazabuka. These are the same points in the all the figures presented below in this section whenever they appear.



**Figure 3-27: BOD level for selected areas along Kaleya stream in Mazabuka**



**Figure 3-28: Chemical Oxygen Demand concentration along Kaleya Stream**

Figures 3.26, 3.27 and 3.28 above show that DO, BOD and COD were above the ECZ set standard. The high DO, BOD and COD peak noticed at Simbotwe, 2512 and Njomona in figures 3.26, 3.27 and 3.28 can be attributed to bulk organic materials in the effluent discharge. This is an indicator of inadequate pre-treatment and is a sign of inefficiency of the treatment ponds, which have a low retention time due to the accumulated sludge.

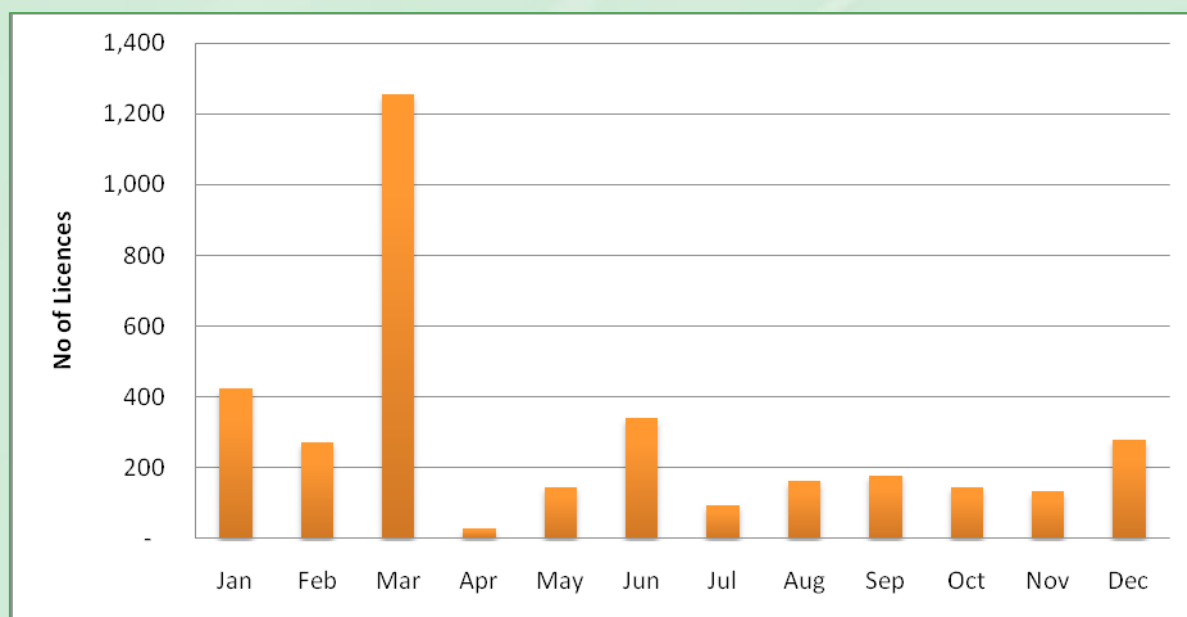
## 4.0 ENVIRONMENTAL INFORMATION MANAGEMENT

### 4.1 Data and Information Management

A total of 3,523 licenses were issued in the year 2010. These were captured into the Licensing Information System (LIS) as categorised in Table 4.1.1 and figure 4.1

**Table 4-1: Categories of licenses issued in 2010**

No	Type of Licenses	No of Licenses
1	Importation of PTS	1,331
2	Distribution of Chemicals	252
3	Storage of Chemicals	279
4	Fumigation	45
5	Pest Control	27
6	Transportation of Toxic Substances	108
7	Ozone Depleting Substances	51
8	Transportation of Hazardous Waste	73
9	Generation of Hazardous Waste	188
10	Storage of Hazardous waste	174
11	Hazardous Waste Disposal site	36
12	Air Pollution Permits	219
13	Water Pollution	243
14	Pre-treat waste water	-
15	Waste Disposal Sites	181
16	Transportation of Waste	246
17	Certificate of Disposal	33
18	Exportation of Chemicals	28
19	Export H/Waste	3
20	Pre-treat H/Waste	6
	<b>TOTAL</b>	<b>3,523</b>



**Figure 4-1: Licenses captured into LIS by month for year 2010**

## 4.2 Environmental Education and Public Awareness

ECZ recognizes the need to increase environmental awareness and public participation in the environmental regulatory framework. ECZ commenced development of a sector wide communication strategy. The aim of the strategy is to enhance coordination to the environment and natural resources sector through improved environmental awareness.)

In 2010, the following awareness raising activities were undertaken:

### 4.2.1 Youth and Learning Institutions

ECZ conducted and supported various initiatives aimed at raising awareness in learning institutions such as the EEASA Conference whose theme was Decade of Education for sustainable development: lessons and processes for a sustainable world and the Green eLiP (define) which focused on the use of Technologically Supported Learning for Environmental Education.

- i. A tree planting exercise on 17<sup>th</sup> and 18<sup>th</sup> February at Chawama Basic and Kafue Boys Secondary Schools respectively;
- ii. An awards ceremony in collaboration with the British Council for the 10 International Climate Change Champions at Copperbelt University on 27<sup>th</sup> March
- iii. An environmental fair for children and youth during the EEASA Conference at CBU from 19<sup>th</sup> to 24<sup>th</sup> September

### 4.2.2 Educational Materials

A number of educational materials were completed and distributed during the period under review. These included;

- i. The Zambia Environment Outlook 3 report of 2006,
- ii. Kabwe and Kitwe District State of Environment outlook reports for 2010 ,
- iii. ECZ fact sheets, car stickers, EIA booklets and various brochures,

- iv. Training manual and guidelines for district state of environment reporting,
- v. Creating and Protecting Zambia's Wealth-Experience and next steps in Environmental Mainstreaming book, and
- vi. Translation and printing of a poster on water pollution in 7 local languages.

#### **4.2.3 Environmental Newsmaker Forum**

The environmental newsmaker fora are aimed at raising awareness on topical environmental issues among media personnel and members of the public. In 2010, two fora were held discussing (i) Uranium Mining in Zambia and its Management, and (ii) Impacts of Mining after privatisation: Assessing measures taken to meet Development Agreements.

#### **4.2.4 Commemoration of significant International Days**

ECZ participated in the commemoration of a number of international environmental days such as World Environment Day under the theme, *Many Species, One Planet, One Future*; Earth Day under the theme *reuse the past, recycle the present and save the future*.

#### **4.2.5 National Exhibitions**

Participation in national exhibitions is one of the tools used to raise awareness on the operations of ECZ and to provide environmental information. ECZ participated in three national exhibitions in 2010 namely:

- i. The 84<sup>th</sup> Zambia Agriculture and Commercial Show where ECZ scooped the first prize under government category;
- ii. Southern Tourism, Agriculture and Commercial Show; and
- iii. Copperbelt Mining, Agricultural and Commercial Show where ECZ also scooped a prize



#### 4.2.6 Recognition of Environmental Achievements

ECZ recognises individuals and institutions who promote environmental stewardship in the country. As part of this recognition, environmental awards are held annually. Table 4.2 presents recipients of environmental awards in 2010.

**Table 4-2: Recipients of Environmental Awards in 2010 by Category**

Name of Award	Recipient
Environmental Award for overall contribution to sound management practices in industry	Grizzly Mine
Environmental Award in recognition of positive improvements towards sound management practices	i. Zambian Breweries Plc-North ii. Lafarge Cement Zambia-Tukule-Chilanga Plant
Environmental Award for a Local Authority	Mazabuka Municipal Council
Singy Hanyona Award for overall contribution to Environment and Development Journalism	Anne Chimbuvu Chiluba
Print Media Award	Rebecca Mushota
Electronic Media Award	Mutukwa Mooya
The Green Award	Bankers Association of Zambia

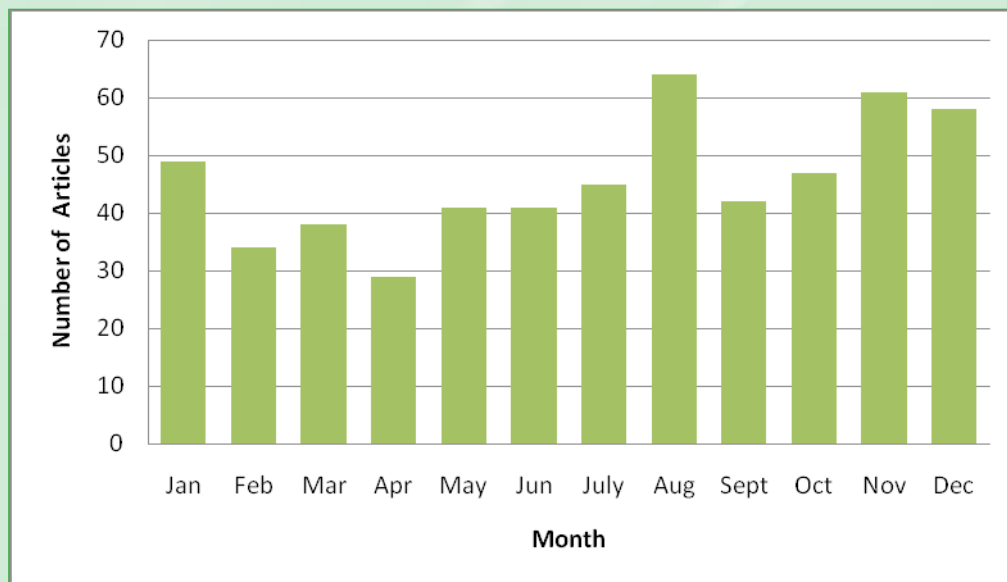
#### 4.2.7 Media Programmes and Monitoring

In order to build capacity in environmental reporting, ECZ conducted a workshop on the environmental regulatory framework for news editors from 20 media institutions.

ECZ also continued conducting various media programmes. These included 13 series TV programme on both ZNBC and Muvi-TV and 32 weeks on ZNBC Radio 2, entitled *Environment and You*. In addition, the ECZ featured on various media programmes on both radio and television such as Kwacha Good Morning Zambia and Morning Breakfast Show.

Further, a needs assessment on the coverage of environmental issues in the country was conducted as part of preparation for production of national and community radio programmes. These programmes will be produced in 2011.

In addition, the institution continued to monitor the print media for environment related stories. A total of 549 stories on various environmental issues were captured in the Times of Zambia, Zambia Daily Mail and Post Newspapers compared to 498 in 2009, representing an increase of 10%. Issues relating to climate change, waste management, and natural resources in general received the highest coverage. Figure 4.2 shows the total number of press clippings captured in 2010.



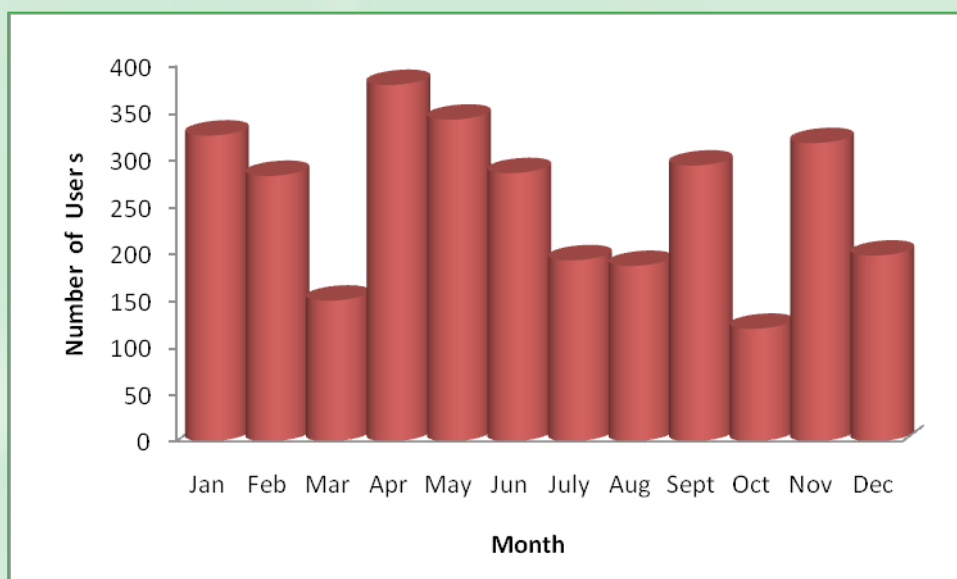
**Figure 4-2: Number of Press Clippings Captured in 2010**

#### 4.2.8 Public Hearings

In order to encourage public participation in the Environmental Impact Assessment process, ECZ facilitated a total of 18 public hearings in 2010 as part of decision making process in the review of EISs.

#### 4.2.9 Information and Documentation Centre

ECZ continued with provision of environmental information to members of staff and the general public through its Information and Documentation Centre (IDC). During the period under review, **3,078** users requested for information on various subject areas. The majority of users requested for information on climate change, EIA, waste management and air pollution. Figure 3.3 presents the total number of users who utilized information services provided through the IDC in 2010.



**Figure 4-3: Total Number of Users of IDC from January to December, 2010**

#### 4.4 Integrated Environmental Assessment and Reporting

ECZ continued co-ordinating Integrated Environmental Assessment (IEA) and Reporting activities at national and district levels. The Zambia Environment Outlook (ZEO) 3 report was launched on 16<sup>th</sup> December at Golden Bridge Hotel, Lusaka. The report highlights major environmental challenges affecting the country, assesses effectiveness of current interventions and proposes policy actions necessary to address identified challenges.

The Council also completed production of District State of Environment (SoE) Outlook Reports for Kitwe and Kabwe. The reports are aimed at assessing the state of the local environment in order to improve district planning and development. The reports will be launched in 2011.

In addition, preparation of SoE Outlook reports for Mansa, Mazabuka, Mongu and Nakonde commenced. Stakeholder consultative meetings, training in IEA and reporting and data collection were conducted during the period under review. The reports are expected to be completed in 2011.

Furthermore, ECZ received support from UNEP/GRID-Arendal, Norway for production of an Atlas of Zambia's Changing Environment. The atlas is aimed at identifying environmental changes that have occurred in Zambia and proposing appropriate measures to prevent, manage and/or mitigate such impacts.



## 4.5 Partnerships and Networking

Environmental management requires collaboration with various stakeholders both within and outside the country. ECZ continued to sustain a number of networks with strategic partners such as:

**i. African Network of Environmental Journalists:** African Network for Environmental Journalists (ANEJ) Zambia Chapter seeks to promote public understanding of environmental issues in Africa by improving the quality, accuracy and frequency of environmental reporting. In 2010, ECZ facilitated visits from the Ethiopian Environmental Journalists Association (EEJA) to discuss environmental management in Zambia.

**ii. Community Exchange Programme:** The aim of this programme is to facilitate communities to learn from each other and share best practices. In 2010, ECZ facilitated two exchange programmes in Nakonde and Lundazi. The activity was undertaken in collaboration with Zambia Energy and Environmental Organisation (ZENGO), a Non-Governmental Organisation (NGO). Further, training workshops were held in Lundazi and Nakonde.

**iii. Environmental Education Association of Southern Africa Conference:** The aim of the conference was to bring together EE practitioners from within the region to share experiences and learn about new techniques in EE. ECZ participated in the 28<sup>th</sup> Environmental Education Association of Southern Africa (EEASA) conference that was held at Copperbelt University in Zambia in September.

**iv. Green eLIP Network:** The objective of this network is to facilitate Technologically Supported Learning (TSL). In this, ECZ hosted a training workshop on TSL Learning in Environmental Education in collaboration with United Nations Environment Programme (UNEP). The workshop attracted 11 participants from Zambia and 12 others from the SADC region. In addition, the 2<sup>nd</sup> Steering Committee Meeting of the Pan Africa E-Learning for the Environment Network was held and discussed progress made in implementing Decision 6 on Environmental Education and Technology-supported learning by the 12<sup>th</sup> session of the African Ministerial Conference on Environment (AMCEN).

**v. Zambia Library Association:** The Zambia Library Association (ZLA) aimed at strengthening professional networking among Librarians. In 2010, ECZ participated in the Annual General Meeting (AGM) which was held in Livingstone and the Standing Conference of Eastern, Central and Southern Africa Library and Information Associations (SCECSAL) conference in Gaborone, Botswana. The conference theme was *Enhancing Democracy and Good Governance through Effective Information and Knowledge Services*.

**vi. Zambia Network for Environmental Educators and Practitioners:** The network is aimed at ensuring that environmental issues are tackled professionally, with an understanding of how environmental education facilitates behavioural change, and encourages people to act in responsible ways in exploiting the natural resource base. In 2010, ECZ supported the seventh (7<sup>th</sup>) AGM for the network.

## **5.0 HUMAN RESOURCE AND ADMINISTRATION**

### **5.1 Human Resource Levels 2010**

ECZ had a total of 84 members of staff as at 31<sup>st</sup> December 2010. The staff establishment was expanded from 89 to 91 by inclusion of two positions of Assistant Accountant to provide administrative support in the Livingstone and Chirundu offices.

### **5.2 Human Resource Development**

In order to position itself as a world class environmental authority, the Council continued to develop its members of staff through sponsorship for both short and long term training programmes. A total of 18 members of staff attended short term training.

## 6.0 CHALLENGES

ECZ continued to face several challenges during the year under review. The major challenges continued to be inadequate funding to meet operational costs to the extent that the institution's operations are significantly scaled down and office space at Lusaka head office. In addition, non-compliance to payment of licence fees, submission of statutory returns and pollution from facilities with old technology. Furthermore, there was poor cooperation from lead agencies especially local authorities regarding submission of comments on EIA reports.

Due to increased environmental awareness to the public, the ECZ began to be subjected to an increase in the demand for its services. This requires the institution to build its capacity to effectively implement its mandate.

## 7.0 UTILIZATION OF RESOURCES

The estimated budget for 2010 was K29.29 billion and K24.81 billion was realized. The major sources of income were from statutory fees, grants from GRZ and cooperating partners. Table 6.1 shows the breakdown of the sources of funds

**Table 7-1: Breakdown of the Sources of Funds**

Source of Funds	ACTUAL K' Billion	BUDGET K' Billion	VARIANCE K' Billion	VAR %
<b>INCOME</b>				
Grants	10.89	17.30	(6.41)	(37%)
Statutory fees	12.99	11.24	1.75	16%
Other income	1.20	0.66	0.54	82%
<b>Sub Total</b>	<b>25.08</b>	<b>29.20</b>	<b>(4.12)</b>	<b>(14%)</b>
Exchange gain/(loss)	(0.27)	0.09	(0.36)	(400%)
<b>Total Income</b>	<b>24.81</b>	<b>29.29</b>	<b>(4.48)</b>	<b>(15%)</b>

Further information on budget performance is provided in the attached audited accounts for 2010.

**ENVIRONMENTAL COUNCIL OF ZAMBIA**

# **Financial Statements**

**For the year ended 31st December 2010**

**CYMA**

*Chartered Public Accountants & Management Consultants*

**4<sup>th</sup> Floor, Electra House, Cairo Road**

**P O Box 38298, Lusaka**

**Tel: 231960 Fax: 237693**

**Lusaka, Zambia**

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## Statement of Council Members' Responsibilities

The Environmental Protection and Pollution Control Act (EPPCA) (1990) and subsequent amendments requires the council to prepare financial statements for each financial year, which give a true and fair view of the Council state of affairs and of the surplus or deficit of the Council's for the period.

In preparing such financial statements the council acknowledges its responsibility to;

- (a) Select suitable accounting policies and then apply them consistently;
- (b) Make judgments and estimates that are reasonable and prudent; and
- (c) Prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Council will continue in perpetuity.

The Council is responsible for keeping proper accounting records, which disclose with reasonable accuracy at any time the financial position of the council and enable it to ensure that the financial statements comply with the EPPCA 1990. They are also responsible for safeguarding the assets of Council and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The members of the council confirm that in their opinion:

- (a) The financial Statements give a true and fair view of the Council's affairs at 31<sup>st</sup> December 2010 and its surplus and cash flow for the year then ended;
- (b) At the date of this statement there are reasonable grounds to believe that the Council will be able to pay its debts as and when these fall due; and
- (c) The financial statements are drawn up in accordance with applicable accounting standards.
- (d) Nothing has come to the attention of the Council members to indicate that the Council will not remain a going concern for at least twelve months from the date of this statement

This statement is made in accordance with a resolution of the members of the Council.

Signed at Lusaka on **15 August 2011**

  
\_\_\_\_\_  
**COUNCIL CHAIRPERSON**

  
\_\_\_\_\_  
**DIRECTOR**

# ENVIRONMENTAL COUNCIL OF ZAMBIA

## CYMA

Chartered Accountants & Management Consultants

### LUSAKA

4<sup>th</sup> Floor, Electra house  
Cairo Road  
Lusaka Fax: 236779  
Zambia

### Postal Address

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### LIVINGSTONE

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Musi-O-Tunya House  
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Zambia

### Postal Address

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Tel: 323316  
Zambia

## REPORT OF THE INDEPENDENT AUDITORS TO THE AUDITOR GENERAL AND THE COUNCIL OF ENVIRONMENTAL COUNCIL OF ZAMBIA

To the Members

### ENVIRONMENTAL COUNCIL OF ZAMBIA

We have audited the financial statements of **ENVIRONMENTAL COUNCIL OF ZAMBIA (ECZ)** which comprise of the statement of financial position as at 31 December 2010 and the statement of comprehensive income, statement of changes in equity and statement of cash flows for the year then ended, and a summary of significant accounting policies and explanatory notes.

### Respective responsibilities of the council and auditors

As described on page 1, the Council is responsible for the preparation of the financial statements. It is our responsibility to form an opinion, based on our audit, on these financial statements and to report our opinion to you.

### Basis of Opinion

We have conducted our audit in accordance with approved international standards on auditing. An audit includes examination, on a test basis, of evidence relevant to the amounts and disclosures in the financial statements. It also includes an assessment of the significant estimates and judgments made by the registered trustees in the preparation of the financial statements, and of whether the accounting policies are appropriate to the Council's circumstances, consistently applied and adequately disclosed.

We planned and performed our audit so as to obtain all information and explanations which we considered necessary in order to provide us with sufficient evidence to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or other irregularity or error. In forming our opinion, we also evaluated the overall adequacy of the presentation of information in the financial statements.

### Going Concern

Without qualifying the opinion below, we draw attention to note (a) in the financial statements which indicates that as at 31<sup>st</sup> December 2010, the organisations current liabilities exceeded its current assets by K2,491,352,000. These conditions along with other matters as set forth in note (a) indicate the existence of material uncertainty which may cast significant doubt about the Council's ability to continue as a going concern.

### Limitation of Scope

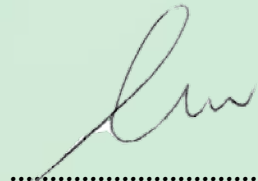
- We did not audit the opening balances and therefore do not express an opinion on the opening balances.
- The Council recognises income on receipts basis rather than accruals basis. The income shown in the financial statements is not wholly for the period under review
- The Council does not recognize debtors in the Financial Statements for the various services offered.

# ENVIRONMENTAL COUNCIL OF ZAMBIA

## Opinion

Except for the above limitations, in our opinion, the financial statements give a true and fair view of the financial position of the company as at 31<sup>st</sup> December 2010 and of its financial performance and its cash flows for the year then ended, in accordance with applicable International Financial Reporting Standards and have been prepared in accordance with the Companies Act 1994, and the accounting and other records and other records and registers have been properly kept in accordance with the Act.

## CYMA



.....  
Chintu. Y. Mulendema  
**Managing Partner**

**Date: 22 August 2011**

# ENVIRONMENTAL COUNCIL OF ZAMBIA

## Detailed Operating Statement

For the year ended 31st December 2010

	Notes	2010		2009	
		K'000	K'000	K'000	K'000
<b>INCOME</b>					
Grants	8		<b>10,885,933</b>		15,780,622
Statutory Fees	9		<b>13,061,910</b>		13,350,393
Other Income			<b>1,256,395</b>		1,796,984
			<b>25,204,238</b>		30,928,000
<b>EXPENSES</b>					
Administration Expenses	13		<b>5,753,834</b>		4,153,597
Audit Fees			<b>60,094</b>		50,000
Consultancy			<b>57,652</b>		76,839
Depreciation			<b>1,945,317</b>		1,629,309
Job Evaluation expenses			<b>102,846</b>		-
Other Expenses			<b>1,073,724</b>		1,570,589
Review and Monitoring Expenses			<b>339,596</b>		308,655
Seminars and Workshops			<b>61,388</b>		39,761
Staff Costs			<b>9,458,420</b>		7,695,634
Vehicles & General Insurance			<b>1,419,398</b>		904,471
Project expenses					
<i>GHS</i>	14a		<b>109,267</b>		-
<i>UNEP/OZONE</i>	14b		<b>170,190</b>		179,162
<i>CEP</i>	14c		<b>3,926,896</b>		9,328,845
<i>UNEP/GEF IAS</i>	14d		<b>288,845</b>		980,663
<i>GRZ-CO-FINANCE IAS</i>	14e		<b>212,041</b>		841,463
<i>ENRMMP</i>	14 f		<b>2,041,601</b>		789,964
			<b>6,748,840</b>		12,120,096
			<b>27,021,109</b>		28,548,950
<b>SURPLUS/(DEFICIT) FOR THE YEAR</b>			<b>(1,816,871)</b>		2,379,050

## Statement of Changes in Accumulated Funds

For the year ended 31st December 2010

		<b>Grants</b>	<b>Retained Funds</b>	<b>Total</b>
	<b>Notes</b>	<b>K'000</b>	<b>K'000</b>	<b>K'000</b>
At 31 <sup>st</sup> December 2008		61,576	(2,618,546)	(2,556,970)
Prior Year Adjustment			754,424	754,424
Amortization for the year		(30,788)	-	(30,788)
Surplus for the Year		-	2,379,050	2,379,050
At 31 December 2009		30,788	514,927	545,716
Prior Year Adjustments	12	-	2,769,170	2,769,170
Amortization for the year		(30,788)	-	(30,788)
(Deficit) for the Year		-	(1,816,871)	(1,816,871)
<b>At 31 December 2010</b>		-	1,467,226	1,467,226

# ENVIRONMENTAL COUNCIL OF ZAMBIA

The notes on pages 8 to 15 form part of the financial statements

## Statement of Financial Position

As at 31st December 2010

	NOTES	2010	2009
<b>ASSETS</b>			
<b>Non – Current assets</b>			
Property, plant and equipment	3	<b>8,044,833</b>	8,603,130
		<b>8,044,833</b>	8,603,130
<b>Current Assets</b>			
Receivables	4	<b>1,174,389</b>	1,955,331
Stocks		<b>27,607</b>	-
Tax Recoverable		<b>66,048</b>	50,220
Cash and cash equivalents	5	<b>7,556,233</b>	7,137,110
		<b>8,824,277</b>	9,142,661
<b>TOTAL ASSETS</b>		<b>16,869,111</b>	17,745,791
<b>Accumulated Funds &amp; Liabilities</b>			
<b>Accumulated Funds</b>			
Accumulated Surplus/(Deficit)		<b>1,467,226</b>	514,927
Capital Grant	10	-	30,788
Revaluation Reserves		<b>2,043,944</b>	2,043,944
		<b>3,511,170</b>	2,589,659
<b>Non current liabilities</b>			
Employee Benefits	11	<b>2,039,312</b>	2,189,312
<b>Current liabilities</b>			
Payables and Accruals	7	<b>10,862,621</b>	12,947,438
Bank Overdraft	6	<b>453,008</b>	19,382
		<b>11,315,629</b>	12,966,820
<b>Total Accumulated Funds and Liabilities</b>		<b>16,869,111</b>	17,745,791

These financial statements were approved by the members of Council on..... and were signed

# ENVIRONMENTAL COUNCIL OF ZAMBIA

on its behalf by:

\_\_\_\_\_  
Council Chairman

\_\_\_\_\_  
Director

The notes on pages 8 to 15 form part of the financial statements

## Statement of Cashflows

For the year ended 31st December 2010

	Notes	2010	2009
<b>CASHFLOW FROM OPERATING ACTIVITIES</b>			
Deficit for the year ended		(1,816,871)	2,379,050
<b>Adjustment in for non cash items</b>			
Depreciation		1,945,317	1,629,309
Interest Received		(134,135)	(160,360)
Amortizations of Capital Grant		(30,788)	(30,788)
Prior Year Adjustment		2,769,170	754,424
Profit on Disposal of Property, plant & Equipment		-	(87,709)
		<b>2,732,693</b>	<b>4,483,926</b>
<b>Changes in working capital</b>			
Decrease in Trade and Other receivables		783,951	(1,087,344)
Increase in Stocks		(27,607)	-
Decrease in staff pension deficit		(150,000)	-
Decrease in Trade and other payables		(2,084,816)	4,291,070
		<b>1,254,221</b>	<b>7,687,652</b>
Taxation Paid		(15,834)	(18,293)
<b>Net cash outflow from operations</b>		<b>1,238,387</b>	<b>7,669,358</b>
<b>CASHFLOWS FROM INVESTING ACTIVITIES</b>			
Purchase of property, plant and machinery		(1,387,024)	(5,808,476)
Receipts from sales of property, plant & equipment		-	87,709
Interest Received		134,135	160,360
<b>Net cash outflows to investing activities</b>		<b>(1,252,889)</b>	<b>(5,560,407)</b>
<b>CASHFLOWS FROM FINANCING ACTIVITIES</b>			
<b>Net decrease in cash and cash equivalents</b>		<b>(14,502)</b>	<b>2,108,951</b>
Cash & Cash equivalents at 1 <sup>st</sup> January 2010		<b>7,117,727</b>	<b>5,008,776</b>

# ENVIRONMENTAL COUNCIL OF ZAMBIA

Cash and Cash equivalents at 31<sup>st</sup> December 2010

7,103,225

7,117,727

The notes on pages 8 to 15 form part of the financial statements

## Notes to the financial statements

For the year ended 31st December 2010

### 1. Principal Activity

The Environmental Council of Zambia (The Council) was established as a body corporate with perpetual succession and a common seal, capable of suing in its corporate name and with powers, subject to this Act to do all such things as a body corporate may lawfully perform on 23<sup>rd</sup> July 1990 upon the enactment of the Environmental Protection and Pollution Control Act, Cap 204 of 1990. The Council commenced operations in November 1991 under the control of the Ministry of Tourism, Environmental and Natural Resources. The function of the Council is to do all such things as are necessary to protect the environment and control pollution, so as to provide for the health and welfare of persons, animals, plants and the environment. More specifically, the ECZ serves to, among others;

- Draw up and enforce regulations related to water, air and noise pollution, pesticides and toxic substances, waste management and natural resources management.
- Advise the government on the formulation of policies related to good management of natural resources and environment.
- Advise on all matters relating to environmental conservation, protection and pollution control, including necessary policies, research investigations and training.

### 2. SIGNIFICANT ACCOUNTING POLICIES

The principal accounting policies adopted in the preparation of these financial statements are set out below. These policies have been consistently applied to all years presented, unless otherwise stated.

#### a. Basis of preparation of the financial statements

The financial statements have been prepared in compliance with International Financial Reporting Standards (IFRS). The measurement basis applied is the historical cost basis. The financial statements are presented in Zambian Kwacha, rounded to the nearest one thousand.

The preparation of Financial Statements in conformity with IFRS requires the use of estimates and assumptions. It also requires management to exercise its judgment in the process of applying the Council's accounting policies. The area that requires a great deal of judgement or complexity or where assumptions and estimates are significant, are disclosed in this note.

During the year the Council had a loss of K1, 816,871,000. At the Statement of financial position date the Council's current liabilities exceeded its current assets by K2, 491,352,000. The Council meets its day to day operations from the revenue generated from statutory fees, grants from the Government of the Republic of Zambia (GRZ) and other generated incomes.

The financial statements have been prepared on the going concern basis. This implies that the Council is assumed to continue in operational existence for the foreseeable future and it will not become necessary to liquidate or curtail significantly the scale of its operations.

## Notes to the financial statements (Cont,)

For the year ended 31st December 2010

The validity of these assumptions depends on the GRZ continuing its support by providing necessary grants to meet the Council's working capital requirements. GRZ has confirmed that it will continue to provide grants to the Council until it becomes sufficiently self sustaining.

If the Council was unable to continue in operational existence for the foreseeable future, adjustments would have to be made to reduce the balance sheet values of assets to their recoverable amounts, to provide for further liabilities that might arise and reclassify fixed assets as current assets.

Whilst the directors are presently uncertain as to the outcome of the matters mentioned above, they believe that it is appropriate for the financial statements to be prepared on the going concern basis following written confirmations by Government that it will continue to fund the Council until the Council can be self-sustaining.

### **b. Revenue recognition**

Revenue comprises government funding through the Ministry of Tourism, Environment and Natural Resources and donors.

Income is recognized on receipt basis and capital grants are amortised over the economic life of the assets. Interest income is recognized when received.

### **c. Capital grants**

Grants given to the Council for operations are recognized as revenue in the income statement on a systematic basis in the same periods in which the expenses are incurred. Grants given to the Council in the form of fixed assets are recognized in the income statement as revenue on a systematic basis over the useful life of the asset.

## Notes to the financial statements (Cont,)

For the year ended 31st December 2010

### d. Property, plant and equipment

Property, plant and equipment are stated in the balance sheet at cost or valuation less depreciation. Depreciation is calculated to write off the fixed assets on a straight-line basis over the expected useful lives of the assets concerned. The principal annual rates for this purpose are:

Leasehold Buildings	2.5%
Motor Vehicles	20%
Computers and Equipments	30%
Office Furniture and Fittings	10%
Office Equipment	30%
Field and laboratory Equipment	15%

### e. Foreign currency translation

Transactions in foreign currencies are translated at the foreign exchange rate ruling at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies, which are stated at historical cost, are translated at the foreign exchange rate ruling at that date. Foreign exchange differences arising on translation are recognized in the income statement.

### f. Provisions

Provisions are recognized when the Council has a present legal or constructive obligation as a result of past events; it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate of the amount of the obligation can be made.

### g. Employee benefits

The council has a defined contributory scheme for eligible employees and the benefits are payable as per the terms set out in the scheme. The council has no legal or constructive obligation to pay further contributions if the fund doesn't hold sufficient assets to pay all the employees the benefits relating to service in the current and prior periods. The council's contributions to the defined contribution scheme are charged to the statement of comprehensive income in the period in which they arise. In addition the council contributes to the National Pension Scheme Authority which is a defined contribution scheme.

### h. Taxation

The Council, being a statutory body, is exempted from paying income tax under the Income Tax Act, 1996, as provided for under the Second Schedule paragraph 5(1) (i). Withholding Tax on returns from investments is recoverable and is disclosed as such in the receivables.

## Notes to the financial statements (Cont.,)

For the year ended 31st December 2010

### 3. PROPERTY, PLANT AND EQUIPMENT

	Leasehold Land and Buildings K'000	Motor Vehicles K'000	Office Equipment K'000	Furniture & Fittings K'000	Computer Equipment K'000	Field & Lab Equipment K'000	Work in Progress K'000	Total K'000
<b>COST</b>								
At 01.01.10	3,005,086	3,643,362	989,863	208,917	1,128,042	5,202,590	-	14,177,860
Additions	-	778,212	145,939	41,502	76,485	-	344,886	1,387,024
Disposals	-	-	-	-	-	-	-	-
<b>At 31.12.10</b>	<b>3,005,086</b>	<b>4,421,574</b>	<b>1,135,801</b>	<b>250,419</b>	<b>1,204,527</b>	<b>5,202,590</b>	<b>344,886</b>	<b>15,564,884</b>
<b>DEPRECIATION</b>								
At 01.01.10	363,396	2,498,450	742,017	188,972	894,928	886,971	-	5,574,733
Charge for year	89,794	696,148	215,002	8,603	171,884	763,887	-	1,945,317
Disposals	-	-	-	-	-	-	-	-
<b>At 31.12.10</b>	<b>453,190</b>	<b>3,194,598</b>	<b>957,019</b>	<b>197,575</b>	<b>1,066,811</b>	<b>1,650,858</b>	<b>-</b>	<b>7,520,050</b>
<b>N B V</b>								
<b>At 31.12.10</b>	<b>2,551,896</b>	<b>1,226,976</b>	<b>178,783</b>	<b>52,844</b>	<b>137,716</b>	<b>3,551,732</b>	<b>344,886</b>	<b>8,044,833</b>
At 01.01.09	2,977,975	3,562,240	878,152	194,953	1,062,009	157,315	-	8,832,644
Additions	27,111	468,622	156,659	15,794	95,013	5,045,274	-	5,808,476
Disposals	-	(387,500)	(44,949)	(1,831)	(28,982)	-	-	(463,261)
<b>At 31.12.09</b>	<b>3,005,086</b>	<b>3,643,362</b>	<b>989,862</b>	<b>208,916</b>	<b>1,128,041</b>	<b>5,202,589</b>	<b>-</b>	<b>14,177,860</b>
<b>DEPRECIATION</b>								
At 01.01.10	288,269	2,330,777	635,407	166,238	871,946	116,048	-	4,408,681
Charge for year	75,127	555,172	151,558	24,565	51,964	770,923	-	1,629,309
Disposals	-	(387,500)	(44,949)	(1,831)	(28,982)	-	-	(463,261)
<b>At 31.12.10</b>	<b>363,396</b>	<b>2,498,450</b>	<b>742,017</b>	<b>188,972</b>	<b>894,928</b>	<b>886,970</b>	<b>-</b>	<b>5,574,729</b>
<b>N B V</b>								

# ENVIRONMENTAL COUNCIL OF ZAMBIA

At 31.12.09 2,641,690 1,144,912 247,846 19,944 233,113 4,315,619

4. 4.4. RECEIVABLES AND PREPAYMENTS	2010 K'000	2009 K'000
Staff Receivables	832,503	687,732
Prepayments	286,044	272,795
Goods In Transit	-	775,842
Sundry Receivables	55,842	218,965
	<u>1,174,389</u>	<u>1,955,334</u>

## Notes to the financial statements (Cont,)

For the year ended 31st December 2010

5. CASH AND CASH EQUIVALENTS	2010 K'000	2009 K'000
Petty cash – Livingstone	2,500	2,500
Petty cash – Lusaka	7,560	7,560
Petty cash – Ndola	3,000	3,000
Retirable Imprest (UNDP)	-	5,289
Retirable Imprest (RBIPMA)	4,000	-
Stanbic – GRZ Call Account	461,382	552,708
Citibank – ENRMMP ZMK account	2,124,087	1,206,636
Citibank – Licence Fees Account – Lusaka	588,709	825,224
Citibank – Licence Fees Account – Ndola	532,161	574,677
Stanbic USD – GRZ	387,964	620,382
First National Bank – ZMK Time Deposit	832,480	800,000
Finance Bank ZMK – Lusaka	25,847	22,886
Finance Bank ZMK – Livingstone	27,842	12,354
Finance Bank ZMK – IAS pilot site – Monze	330	6,911
Investrust Bank – CEP Euro a/c	306,526	12,067
Investrust Bank – CEP ZMK a/c	-	47,207
Home Ownership scheme (FBS a/c)	174,794	196,174
Stanbic ZMK – Loans revolving fund	4,044	39,234
Stanbic Bank – USD Co – finance IAS a/c	-	17,756
Stanbic Bank – ZMK Co – finance IAS a/c	-	8,253
Stanbic Bank – USD UNEP/ IAS a/c	-	39,927
Investrust Bank – Investment a/c	269,172	258,226
Citibank USD – UNEP/OZONE	1,018,638	847,450
Citibank ZMK – UNEP/OZONE	42,336	9,764
Citibank USD – ESP	259,513	251,401
Finance Bank – ZMK short term deposit	-	157,231
Stanbic USD – short term deposit	483,348	612,293
	<u>7,556,233</u>	<u>7,137,110</u>
<b>6. BANK OVERDRAFT</b>		
FINANCE Bank – IAS pilot site – L'stone	-	2,533
Investrust Bank – CEP ZMK a/c	318,741	-

# ENVIRONMENTAL COUNCIL OF ZAMBIA

Stanbic – GRZ Current Account	134,267	14,641
Stanbic Bank – ZMK UNEP/IAS a/c	-	2,208
	<u>453,008</u>	<u>19,382</u>

## 7. PAYABLES AND ACCRUALS

Sundry Payables	5,269,546	5,543,023
Deferred Income	2,252,852	978,322
Statutory Payables	344,854	236,003
Accruals	2,995,368	6,190,090
	<u>10,862,621</u>	<u>12,947,438</u>

## Notes to the financial statements (Cont,)

For the year ended 31st December 2010

	2010 K'000	2010 K'000
<b>8. GRANTS</b>		
GRZ	3,408,477	3,408,577
CEP	3,759,433	8,500,921
UNEP/GEF IAS	413,813	928,658
GRZ-CO-FINANCE IAS	-	373,798
UNEP/OZONE	345,158	572,068
ENRMMP	2,959,052	1,996,600
	<u>10,885,933</u>	<u>15,780,622</u>

## 9. STATUTORY FEES

Farm Inspection Fees	2,700	2,000
Waste Management Fees	1,708,913	1,440,367
Water Pollution Control	575,525	774,185
Pesticides and Toxic Substances	2,690,909	1,747,601
Air and Noise	571,688	562,020
Environmental Impact Assessment	7,487,036	8,774,361
Ozone Depleting	25,139	49,860
	<u>13,061,910</u>	<u>13,350,393</u>

## 10. CAPITAL GRANT

	GRZ K'000	NORAD K'000	CIDA K'000	UNDP K'000	UNEP/GEF K'000	NETHERLANDS K'000	Total K'000
Balance at 1 January	3,470	27,318	-	-	-	-	30,788
Amortised during year	(3,470)	(27,318)	-	-	-	-	(30,788)
Balance at 31 December	-	-	-	-	-	-	-

## 11. EMPLOYEE BENEFITS

The scheme is administered under the multi-employer pension fund, the Zambia State Insurance Corporation Pension Trust, which holds the scheme's assets independent of the Council's assets. In consideration of the deficit on the fund, it was decided to convert the scheme to a defined contribution scheme from a defined benefit one, since ECZ could not sustain the deficit in the foreseeable future. The deficit on the fund was accrued in the financial statements for the year ended 31<sup>st</sup> December 2009 and it will be paid over a period of four years.

2010 K'000	2009 K'000
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# ENVIRONMENTAL COUNCIL OF ZAMBIA

Actuarial Deficit	2,039,312	2,189,312
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The Council was supposed to liquidate the deficit in installments of K547,327,963 per year but only paid K150,000,000 leaving K397,327,963 unpaid for the year 2010.

The table below summarises the membership data of the Scheme as at 31<sup>st</sup> December 2010:

	Number of members	Average Age (years)	Projected Benefit K'000
Actual Members	60	37	3,629,364
Deferred Members	11	37	-
<b>Total</b>	<b>71</b>	<b>37</b>	<b>3,629,364</b>

## Notes to the financial statements (Cont.)

For the year ended 31st December 2010

### 12. PRIOR YEAR ADJUSTMENTS

The Environmental Council of Zambia was providing for Terminal benefits for its employees at the rate of one and a half month pay for every year served. This provision amounting to K2,769,170,000 was provided in the ECZ books of accounts up to the year 2005. The provision has been in the ECZ books since then. It has now been decided that this provision is no longer necessary as ECZ contributes both to NAPSA and House Pension Scheme that is managed by the Zambia State Insurance Pension Fund Trust.

	2010 K'000	2009 K'000
<b>13. ADMINISTRATION EXPENSES</b>		
Advertising	<b>390,158</b>	594,299
Bank Charges	<b>53,981</b>	44,444
Board and Committee	<b>423,119</b>	566,502
Campaign Awareness	<b>138,913</b>	24,908
Donations	<b>8,298</b>	7,500
Education & Training	<b>341,903</b>	254,690
Electricity & Water	<b>72,145</b>	20,460
Email and internet	<b>167,206</b>	3,000
Funeral Expenses	<b>11,960</b>	3,096
Labour day and celebrations	<b>89,745</b>	65,209
Legal fees	<b>6,025</b>	245
Meetings	<b>404,978</b>	251,874
Newspapers	<b>60,086</b>	31,220
Office accommodation rentals	<b>36,000</b>	36,000
Office Expenses	<b>213,912</b>	294,180
Penalty on Napsa and PAYE	<b>149,999</b>	-
Printing & Publishing	<b>298,727</b>	65,498
Protective clothing	<b>25,326</b>	8,637
Rates	<b>9,500</b>	10,814
Relocation expenses	-	54,887
Repairs & Maintenance	<b>392,925</b>	188,785
Security	<b>212,329</b>	181,560
Stationery	<b>135,510</b>	143,511
Subscriptions	<b>43,437</b>	44,450

# ENVIRONMENTAL COUNCIL OF ZAMBIA

Telephone and Postage	197,642	167,420
Trade Fair/Agricultural Shows	178,152	5,220
Travelling Expenses	1,691,858	1,085,187
	<u>5,753,834</u>	<u>4,153,597</u>

## 14a. GHS

Personnel Component	34,126	-
Training Component	33,200	-
Meetings/Conferences Component	41,000	-
Reporting Component	341	-
Miscellaneous Component	600	-
	<u>109,267</u>	<u>-</u>

## Notes to the financial statements (Cont,)

For the year ended 31st December 2010

14b. UNEP/OZONE	2010 K'000	2009 K'000
Personnel Component	31,774	32,699
Administration	40,329	38,222
Workshops & Seminars	98,087	108,240
	<u>170,190</u>	<u>179,162</u>

## 14c. CEP

Environmental Legislation Review	108,601	235,387
Environmental Mgt & Compliance Monitoring	1,732,192	1,413,058
ECZ Capacity Building	687,846	6,443,551
Coordination & Capacity Building – Partners interest	228,604	72,661
Environmental Emergency Response system	195,796	104,393
Environmental awareness & Public Participation	561,487	516,317
Project administration	288,326	472,914
Planning ,Monitoring & Evaluations	124,044	70,564
	<u>3,926,896</u>	<u>9,328,845</u>

## 14d UNEP/GEF/IAS

Project personnel Component	101,096	310,581
Sub Contract Component	40,571	107,481
Training Component	28,540	250,810
Equipment & Premises Component	11,970	52,570
Miscellaneous Component	106,668	259,220
	<u>288,845</u>	<u>980,663</u>

## 14e GRZ-CO-FINANCE IAS

Project personnel Component	36,988	13,535
Sub Contract Component	16,200	23,505
Training Component	13,362	209,845
Equipment & Premises Component	87,224	304,138
Miscellaneous Component	58,268	290,440
	<u>212,041</u>	<u>841,463</u>

