



REPORT

OF THE

COMMITTEE ON ENERGY, WATER DEVELOPMENT AND TOURISM

FOR THE

FOURTH SESSION OF THE TWELFTH NATIONAL ASSEMBLY

Printed by the National Assembly of Zambia

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REPORT OF THE COMMITTEE ON ENERGY, WATER DEVELOPMENT AND TOURISM FOR THE FOURTH SESSION OF THE TWELFTH NATIONAL ASSEMBLY

1.0 Membership of the Committee

The Committee consisted of Mr E K Belemu, MP (Chairperson); Ms M C Chonya, MP (Vice Chairperson); Mr C M Zulu, MP; Mr D Mung'andu, MP; Mr M Jamba, MP; Mr J Chabi, MP; Mr K Mbangweta, MP; Mr S Mulusa, MP; Mr Romeo Kangombe, MP and Mrs J Mumbi-Phiri, MP.

The Membership of the Committee changed following the appointment of Mrs Margaret D Mwanakatwe, MP, who replaced Mrs J Mumbi-Phiri, MP, to the Committee.

The Honourable Mr Speaker
National Assembly
Parliament Buildings
LUSAKA

Sir,

The Committee has the honour to present its Report for the Fourth Session of the Twelfth National Assembly.

2.0 Functions of the Committee

The functions of the Committee on Energy, Water Development and Tourism, as set out in Standing Order No. 157 (2), are to:

- (i) study, report and make the appropriate recommendations to the Government through the House on the mandate, management and operations of the Government ministries, departments and agencies under its portfolio;
- (ii) carry out detailed scrutiny of certain activities being undertaken by the Government ministries, departments and/or agencies under its portfolio and make appropriate recommendations to the House for ultimate consideration by the Government;
- (iii) make, if considered necessary, recommendations to the Government on the need to review certain policies and existing legislation;
- (iv) examine annual reports of Government ministries and departments under its portfolio in the context of the autonomy and efficiency of Government ministries and departments and determine whether the affairs of the said bodies are being managed according to relevant Acts of Parliament, established regulations, rules and general orders;
- (v) consider any Bills that may be referred to it by the House;
- (vi) consider international agreements and treaties in accordance with Article 63 of the Constitution;

- (vii) consider special audit reports referred to it by the Speaker or an Order of the House;
- (viii) where appropriate, hold public hearings on a matter under its consideration; and
- (ix) consider any matter referred to it by the Speaker on an order of the House.

3.0 Meetings of the Committee

The Committee held fourteen meetings during the year under review to consider submissions from various witnesses on the topical issue: *'The Petroleum Industry in Zambia: Challenges and Opportunities.'* The Committee also considered the Action-Taken-Report on the Report of the Committee on Energy, Water Development and Tourism for the Third Session of the Twelfth National Assembly.

4.0 Arrangement of the Report

The Committee's Report is organised in two parts. Part I deals with the consideration of the topical issue. Part II speaks to the Committee's consideration of the Action-Taken Report on the Report of the Committee on Energy, Water Development and Tourism for the Third Session of the Twelfth National Assembly.

5.0 Procedure Adopted by the Committee

In order to have a better understanding of the topical issue under its consideration, the Committee requested for detailed memoranda from relevant stakeholders on the topical issue. In this vein, the Committee received both written and oral submissions from stakeholders on the topical issue.

6.0 List of Witnesses

The stakeholders who interacted with the Committee are listed under Appendix II.

PART I

THE PETROLEUM INDUSTRY: CHALLENGES AND OPPORTUNITIES

7.0 Background

The petroleum industry in Zambia was characterised by the upstream and downstream petroleum sub-sectors. The upstream component comprised crude oil exploration, production and transportation, while the downstream industry involved product refining, transportation, storage, distribution and retail. Petroleum played a crucial role in the running of Zambia's economy particularly in the agriculture, transport and mining sectors and contributed 9 per cent of the nation's total energy requirements. Consequently, the cost of petroleum imports affected the cost of production and the development trajectory. All petroleum requirements in Zambia were met through imports because the country did not have any proven crude oil reserves. The importation of petroleum dominated all

other expenditure and formed a major part of Zambia's import bill. Based on this fact, the domestic prices of petroleum products were mainly influenced by the international oil prices and the exchange rate of the United States Dollar to the Zambian Kwacha.

At Zambia's independence in 1964 and until 1965, the country's petroleum demands were met through importation of finished petroleum products into the country by multinational oil marketing companies (OMCs). These products were mainly supplied by rail using the southern corridor through Livingstone. In 1967, the Government of the Republic of Zambia and United Republic of Tanzania signed a convention for the construction and operation of a pipeline for the transportation of finished petroleum products and crude oil from Dar-es-Salaam on the Tanzanian coast to the Ndola Fuel Terminal in Zambia. Thus, the Tanzania Zambia Mafuta (TAZAMA) Pipeline Limited was jointly owned by the Governments of Zambia and Tanzania, with 67 per cent and 33 per cent ownership, respectively.

The Indeni Petroleum Refinery was constructed as a joint venture between the Government of the Republic of Zambia and the Italian Government in 1973. The refinery was designed with an annual processing capacity of 1.1 million metric tonnes per annum, but had aged over time and was presently not operating at full capacity. Total output from the refinery was currently at 800,000 metric tonnes per annum. In this regard, the refinery was only able to meet about 50 per cent of the national demand for petroleum products. The design configuration of the refinery was to process a commingled feedstock composed of crude oil, condensate and finished gas oil in proportions dictated by market demand at that time. The commingled feedstock was pumped through the TAZAMA pipeline, from Dar es Salaam in Tanzania to the refinery in Ndola. Therefore, it had become necessary to upgrade it and bring on board new equipment and latest technology to meet new emerging demands in the region, such as need for low sulphur diesel.

In addition to the challenges associated with the old state of the petroleum infrastructure highlighted above, the downstream petroleum sub sector was marred with other hurdles such as the illegal fuel vending and high taxes imposed on fuel, leading to high pump prices of petroleum products.

Oil and gas exploration activities in Zambia could be traced back to 1971 when Romanian geologists assessed the petroleum potential in Zambia. The exercise revealed the indication of possible petroleum in the Barotse Basin. In the mid 1980s, the country was demarcated into five oil and gas blocks, two of which were located in the Luangwa and Zambezi basins. Licenses were granted to Placid Oil and Mobil to conduct some exploration works and two wildcat holes were drilled. However, both holes did not yield any positive results. Consequently, in 1988 petroleum exploration activities in the country were temporary abandoned.

Following the discovery of oil and gas in Uganda and Kenya in the Great East African Rift Valley, exploration activities were reignited in Zambia in 2000. The proximity of Lake Tanganyika to the East African Rift Valley suggested a possible existence of a sub-basin. Consequently, the Ministry of Mines and Minerals

Development started issuing licenses for petroleum exploration blocks. To date, there were eight active licensees conducting exploration works in the country. To further augment efforts to make the upstream petroleum sub sector lucrative, the *Petroleum (Exploration and Development) Act, Chapter 440 of the Laws Zambia* was repealed and replaced by the *Petroleum (Exploration and Development) Act, No. 10 of 2008* to, among other issues, attract investment in the oil and gas sector. It was noteworthy that despite the efforts being directed towards the upstream petroleum sub sector, no oil discoveries had been made.

Premised on the above and taking into consideration the challenges faced in the both the downstream and upstream petroleum sub sectors, the Committee resolved to undertake a study of the petroleum industry in Zambia.

7.1 Objectives of the Study

The objectives of the study were to:

- (i) appreciate the legal and policy framework governing the petroleum industry in Zambia;
- (ii) establish the status of petroleum infrastructure in Zambia;
- (iii) learn how the industry's supply chain affects the pricing of petroleum products;
- (iv) appreciate the status of oil and gas exploration in Zambia;
- (v) identify challenges and opportunities in the petroleum industry in Zambia; and
- (vi) make recommendations on how to establish a sustainable Petroleum Industry in Zambia.

8.0 SUMMARY OF SUBMISSIONS FROM STAKEHOLDERS

A summary of the findings of the Committee on this topical issue are presented below.

8.1 Legal and Policy Framework Governing the Petroleum Industry in Zambia

8.1.1 Legal Framework

The Committee was informed that the petroleum industry in Zambia was governed by two statutes. The down-stream petroleum sub sector was governed by the *Petroleum Act, Chapter 435 of the Laws of Zambia*, while the up-stream petroleum industry was governed by the *Petroleum (Exploration and Production) Act, No. 10 of 2008*. The other pieces of legislation pertinent to the petroleum industry included but not limited to the *Energy Regulation Act, No. 12 of 2019*, *Energy Regulation (Amendment) Act, No. 23 of 2003*, *Metrology Act, No. 6 of 2017*, *Competition and Consumer Act, No. 24 of 2010*, *Standards Act, No. 4 2017*, *Environmental Management Act, No. 12 of 2011* and the *Compulsory Standards Act, No. 3 of 2017*.

8.1.2 Adequacy of the Legal Framework

The Committee was informed that the *Petroleum Act*, which governed the downstream petroleum sub sector, was enacted in 1930. Notably, the Act was defunct and inadequate for the effective management of the downstream subsector. For instance, the Act did not provide mechanisms for the participation of local citizens in the petroleum industry. To further elucidate that the Act had outlived its usefulness, stakeholders noted that at Section 3, it provided that anyone storing more than 200 litres of petroleum should obtain a license from the local council and be subjected to inspection on the premises in which they operated. This function was under the Energy Regulation Board who were mandated under the *Energy Regulation Act, No. 12 of 2019* to issue licenses to entities operating retail sites in the petroleum industry. The *Petroleum Act* did not address the regulation of filling stations and fuel marking programme. In addition, the Act did not specify the minimum standards acceptable for any given type of petroleum product. Therefore, the Energy Regulation Board used the *Standards Act, No. 4 of 2017* to guide the regulation of filling stations and to develop standards for petrol, diesel and other petroleum products. Further, the *Petroleum Act* did not provide guidance on transportation by pipeline, road and rail, or storage of dangerous goods, which included petroleum products. This had led to a fragmented regulatory approach as it related to the handling, transportation and storage of products in the sector.

The Committee was further informed that owing to the revision of the National Energy Policy of 2019, it had become apparent that the *Petroleum Act, Chapter 435 of the Laws of Zambia* neither reflected nor addressed some of the policy measures and strategies contained in the new Energy Policy. For instance, among other issues, the 2019 Energy Policy provided room for Public Private Partnership (PPPs) arrangements for the petroleum sector but this was not well outlined in the *Petroleum Act*. The Act did not provide any minimum citizen share capital requirements for entities operating in the subsector and did not stipulate conditions for investors to partner with Zambian citizens. This had rendered the *Petroleum Act* inadequate and, therefore, in urgent need of review in order to align it with the 2019 National Energy Policy.

The Committee was further informed that the legal framework governing the upstream petroleum sub sector was the *Petroleum (Exploration and Development) Act, No. 10 of 2008*; Statutory Instrument No. 57 of 2011 - Petroleum (Exploration and Development) (National Petroleum Company) Regulations, 2011; and Statutory Instrument No. 58 of 2011 - Petroleum (Exploration and Development)(General) Regulations, 2011. The Committee was informed that the *Petroleum (Exploration and Development) Act, No. 10 of 2008* did not include the services and functions of the Geological Survey Department and its Director. These were found in the *Mines and Minerals Development Act, No. 11 of 2015*, which did not contain any aspects of petroleum. It was noted that the functions of the Geological Survey Department were cardinal for the upstream sub sector. The Committee was further informed

that the Statutory Instrument No. 57 of 2011 - Petroleum (Exploration and Development) (National Petroleum Company) Regulations, 2011, provided for the creation of the National Petroleum Company but this had not yet been established.

The Committee was informed that the *Petroleum (Exploration and Development) Act, No. 10 of 2008* was inadequate as there were some gaps identified in terms of the participation of the Government and local citizens in the upstream of the sub sector. Further, the Act did not prescribe any tax regime in the event that the petroleum was discovered in the country. Stakeholders submitted that in order for Zambians to be able to benefit from the discovery of petroleum, it was important that the law included mechanisms in which local people could be empowered. The Committee was also informed that it would be ideal for the Government to be proactive by putting in place all the necessary modalities, including a tax regime to be applied in the event that oil was discovered.

8.1.3 Policy Framework

The Committee was informed that the first energy policy was formulated in 1994 to promote optimal supply and utilisation of energy, especially indigenous forms for socio-economic development in a safe and healthy environment. In 2008, the Government revised the 1994 National Energy Policy in order to harness the sector's potential in driving economic growth and reducing poverty. The 2008 Energy Policy revision was further necessitated by the need to integrate bio-fuels in the overall energy sector, and to promote private sector participation, amongst other reasons. The introduction of bio-fuels was expected to reduce the high dependence on and the importation cost of petroleum products, especially for the transport sector. The Committee was informed that the National Energy Policy was further revised in 2019.

8.1.4 Adequacy of the Policy Framework

The Committee was informed that one of the issues envisaged to be addressed in the 2019 National Energy Policy was the promotion of bio-fuels in the national fuel mix. However, the Committee learnt that such a provision had also been enshrined in the 2008 Energy Policy but had not been implemented. Both the 2008 and 2019 revisions of the Energy Policy simply stated that the Government would promote the use of bio-fuels. The Policy did not elucidate how this would be achieved. The Committee was informed that without any implementation guidance, the provision would not be actualised.

The Committee was further informed that the 2019 National Energy Policy had, to a large extent, addressed issues of the other energy sub sectors, including the downstream petroleum sub sector. It had, however, not addressed the upstream petroleum sub sector, for instance, under the implementation framework of the Policy, the Ministry of Mines and Minerals Development was not included as one of the stakeholders that would contribute to the effective implementation of the Policy. This was a serious omission and brought to light the fact that the upstream sub sector lacked adequate policy direction. Further, the policy

measures had not explicitly indicated how the Geological Survey and Hydrocarbon Unit was to be supported by the Government to provide the needed geological data for exploration and production. The measures were also silent on building human resource capacity at institutions of higher learning, and how these would provide academic programmes in the realm of geological studies. Therefore, the upstream sub sector was in need of a clear and robust policy that would speak to the challenges of the oil and gas sub sector.

8.2 Status of Petroleum Infrastructure

The Committee was informed that the key petroleum infrastructure in Zambia included the TAZAMA Pipeline, Indeni Petroleum Refinery, Provincial Bulk Fuel Depots (at Ndola Fuel Terminal, Lusaka, Solwezi, Mpika, Mongu and Mansa), oil marketing companies (OMCs) depots, filling stations and Liquefied Petroleum Gas (LPG) storage and filling facilities. The status of the entire petroleum infrastructure was as discussed below.

(i) TAZAMA Pipeline Limited

The Committee was informed that the TAZAMA Pipeline was constructed over forty years ago. The refinery originated from Kigamboni in Dar-es-Salaam, Tanzania, through to the Indeni Refinery in Ndola, Zambia. The pipeline stretched over a distance of 1,710 kilometres. The pipeline was constructed to transport feedstock to the Indeni Refinery.

The Committee learnt that at inception, the TAZAMA Pipeline had a capacity of 1.1 million metric tonnes per annum. However, over time, the pipeline's capacity had de-rated to about 800,000 metric tonnes. Owing to the reduced capacity of the pipeline, it was unable to meet the national demand of petroleum products which stood at approximately 1.2 to 1.3 million metric tonnes per annum. Further, the Committee learnt that the projected national demand was likely to increase by 4 million metric tonnes by 2040. The biggest challenge was that the pipeline was old and was not operating at its optimal capacity. The pipeline was, therefore, in urgent need of an upgrade and rehabilitation.

(ii) Indeni Petroleum Refinery

The Committee was informed that the Indeni Refinery was built in 1973 with a design capacity of 1.1 million metric tonnes per annum. The refinery was meant to process a comingled feedstock with an original spike of 77.5 per cent crude oil, 15.0 per cent gas oil and 7.5 per cent naphtha. The Committee was further informed that over the years, the demand profile for petroleum products had evolved with the market calling for more white petroleum products such as (petrol, diesel, kerosene and Jet A1) than black petroleum products, such as heavy fuel oil and bitumen, thereby rendering the design feedstock spike untenable. These constraints necessitated the reduction in design capacity to 850,000 metric tonnes per annum throughput, with a spike composition of 54 per cent gas oil, 29 per cent crude oil and 17 per cent naphtha. However, even with the revised design capacity, the refinery

average annual throughput for the period 2014 to 2018 was at 646,907 metric tonnes, while the refinery consumption and loss had also been adjusted upward from the design value of 6.5 per cent to 8.5 per cent. This translated into capacity utilisation of 76 per cent.

The Committee was further informed that due to design constraints, the refinery was unable to meet the market demand for cleaner fuels, particularly for gas, oil and low sulphur diesel. The refinery was only able to produce diesel with a maximum sulphur content of 0.35 per cent. In that regard, the Committee was informed that there was need for huge capital investment to make the refinery a robust plant in order to increase production, efficiency and to meet new emerging international standards on fuel specifications. The Committee also learnt that the need to produce low sulphur diesel with sulphur content of 0.05 per cent was a matter of urgency as Zambia was a signatory to the SADC Regional Framework for Harmonisation of Low Sulphur Fuels and Vehicle Emission Standards. The Committee was also informed that by 2022, all the countries that had committed to the SADC Regional Framework would be required to adhere to the low sulphur diesel standard. The Committee learnt that in order for Zambia to meet this requirement, INDENI Refinery needed a new unit called a Diesel Hydrotreater, which would cost approximately US\$250 million, to enable it produce low sulphur diesel.

In the light of the highlighted prevailing circumstances, there was an urgent need to upgrade the refinery to include equipment such as a de-sulphurising unit to make it possible to reduce the sulphur levels in diesel. In addition, there was need to increase the refinery throughput in order for it to be more profitable with economies of scale, and also to match the pipeline's increased throughput rate. At increased throughput and economies of scale, the refinery would also require a cracking unit that would enable it to process pure crude oil which was a cheaper feedstock as compared to the spiked crude oil.

(iii) Ndola Fuel Terminal and Provincial Bulk Depots

The Committee was informed that the Ndola Fuel Terminal (NFT) was the main hub for the wholesale marketing of petroleum products in Zambia. The terminal was located in the Bwana Mkubwa area of Ndola in close proximity to INDENI Refinery. The facility was managed by the Tazama Petroleum Products Limited (TPPL). The facility operated in such a way that finished petroleum products were received at the NFT for distribution to the local market from both the INDENI Petroleum Refinery and through imports. The terminal had 111,200 cubic metres storage capacity for petrol, diesel, low sulphur diesel, jet A-1 and kerosene.

The Committee was further informed that due to increased demand for finished petroleum products as a result of increased economic activities in the country, particularly the opening of new mines in North Western Province in the last ten years, the capacity of NFT had become constrained. In order to ameliorate these challenges, and to enhance the security of supply of finished petroleum products in the country, the Government, through its agent TPPL embarked on a

programme to rehabilitate the NFT and to construct provincial fuel depots. The construction of provincial fuel depots was to be implemented in two phases as tabulated below.

Under Phase 1, the following provincial bulk depots had been completed and commissioned.

- (a) **Copperbelt Province**
The Ndola Fuel Terminal was completed with a fuel storage capacity of 111,200 cubic metres.
- (b) **Lusaka Province**
The Lusaka Fuel Depot was completed with a storage capacity of 25,000 cubic metres.
- (c) **Muchinga Province**
In Muchinga Province, the fuel depot was completed with a storage capacity of 6,500 cubic metres.
- (d) **North Western Province**
The Solwezi Fuel Depot in North Western Province was operational with a storage capacity of 15,500 cubic metres.
- (e) **Western Province**
In Western Province, the Mongu Fuel Depot with a capacity of 6,500 cubic metres was completed.

Phase 2 - Construction of Provincial Fuel Depots was being implemented in Luapula, Lusaka, Eastern and Southern Provinces. The status of the works was as outlined hereunder.

- (a) **Luapula Province**
The Mansa Fuel Depot in Luapula Province was at 98 per cent complete. Once completed, it would have a storage capacity 6,500 cubic metres.
- (b) **Lusaka Province**
The construction works for the second Lusaka Fuel Depot were at mobilisation stage and storage capacity would be determined after conducting a feasibility study.
- (c) **Eastern Province**
The construction of Chipata Fuel Depot in Eastern Province was at mobilisation stage, and storage capacity would be determined after conducting a feasibility study.
- (d) **Southern Province**
In Southern Province, the construction of Choma Fuel Depot was at land identification stage and storage capacity would be determined after conducting a feasibility study.

(iv) **Construction of Rural Filling Stations**

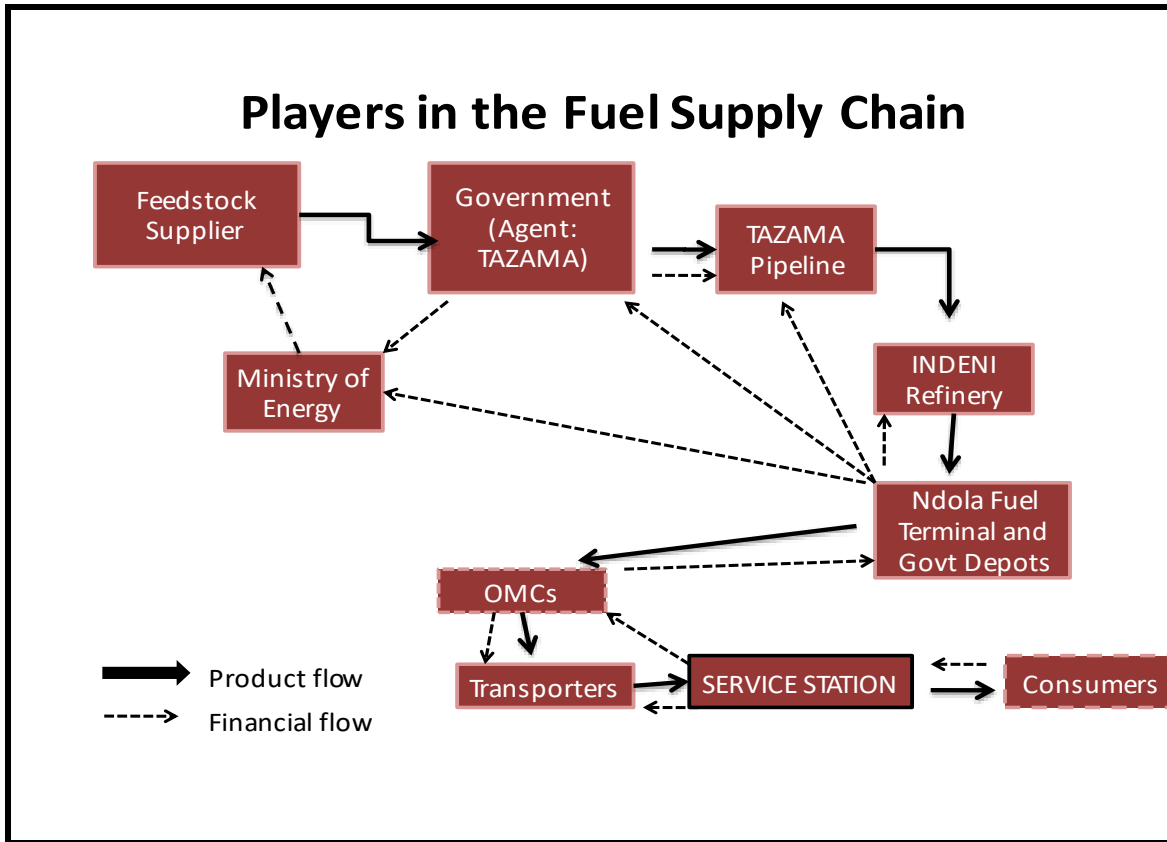
The Committee was informed that there were few filling stations to service the rural parts of the country. In this regard, the Government embarked on a programme to construct four filling stations in rural areas in two phases. Under Phase 1, one filling station in Luwingu District had been completed and commissioned. The filling station was handed over to the private sector for operation. Mporokoso filling station which was also being constructed under Phase 1 was at 97 per cent completion stage. The Committee further learnt that under Phase 2 of the programme, there were plans to construct a filling station in Kalabo and Lukulu. The Committee was informed that the former was at finance mobilisation stage and the latter was at land identification stage.

8.3 Supply Chain Effect on the Pricing of Petroleum Products

The Committee was informed that Zambia's national petroleum requirements were met through the importation of petroleum feedstock and finished petroleum products. The imported feedstock was in the form of spiked crude oil which was transported through the TAZAMA Petroleum Pipeline Limited and refined at INDENI Petroleum Refinery Limited in Ndola. The feedstock was processed into petrol, diesel, kerosene, jet A-1, heavy fuel oil (HFO), and liquefied petroleum gas (LPG). Petrol, diesel, kerosene, and jet A-1 were pumped over to the Ndola Fuel Terminal, where they were later wholesaled to OMCs. HFO and LPG were wholesaled to OMCs at INDENI.

With regard to finished petroleum products, these were imported into the country mainly by road, and to a lesser extent by rail. The imported finished petroleum products were delivered to various Government-owned depots in Ndola, Lusaka, Mpika, Solwezi, and Mongu, where they were sold at wholesale price to OMCs. The Ndola Fuel Terminal and the Government-owned provincial depots were managed by TAZAMA Petroleum Pipeline Limited. From the national depots, the OMCs delivered the petroleum products through petroleum transporters to service stations and final consumers (commercial clients).

Figure 1 - Players in the Fuel Supply Chain



The Committee was informed that the Cost Plus model (CPM) for setting pump prices was first implemented in 1998, but was briefly abandoned in 2004 for the Import Parity Pricing (IPP) methodology. The primary objective of adopting the IPP was to ameliorate operational inefficiencies that Indeni Petroleum Refinery was experiencing at the time. The Committee learnt that the country reverted to the CPM in 2008. The CPM operated on the principle that the final price of petroleum products encompassed all costs in the supply chain. The model relied on information such as invoices and other known standard costs in the supply chain that were provided by the Ministry of Energy, who were the Government designated importers of finished petroleum products. The Committee was further informed that under the CPM, the review of fuel prices was done whenever petroleum feedstock was imported into the country, which was every forty-five to sixty days. This was done in accordance with the Government policy position that fuel prices should be reviewed every sixty days.

The Committee was informed that the Uniform Petroleum Pricing (UPP) mechanism was introduced in 2010 to ensure that the prices of fuels were the same across the country. The implementation of the UPP mechanism implied that the maximum prices for petrol, diesel, kerosene at all retail sites throughout the country were the same. The move was as a result of Government policy to cushion the rural and

outlying areas against high fuel prices. Before the implementation of this mechanism, the difference between the costs of petroleum products across the country was due to the incremental transportation costs with the farthest town having the highest cost. This was implemented at the backdrop of a transport cross subsidy. In essence, this meant that OMCs or independent dealers delivering fuel to retail sites near a Government fuel depot were required to remit the transport differential for each litre of fuel into the UPP Fund. On the other hand, OMCs that delivered fuel to sites far from a national fuel wholesale depot were reimbursed the transport differential for each litre of fuel.

The cost elements in the CPM were divided into two groups, namely: the wholesale price build up and pump price build up as discussed below.

(i) **Wholesale Price Build Up**

The table below illustrates the different costs incurred from the Dar-es-Salaam Port to the Ndola Fuel Terminal. The Committee was informed that the costs highlighted below contributed to the wholesale price build up.

Table 1 – Wholesale Price Build Up

COST ELEMENT	UNIT COST	BASIS
Cost-Insurance-Freight (US\$/MT)		Contract/Supplier Invoice
Wharfage	1.25%	Tanzanian Harbour Authority
Insurance	0.11%	Insurer
TAZAMA Storage Fee (US\$/MT)	2.00	TAZAMA
TAZAMA Pumping Fee (US\$/MT)	49.00	Approved ERB Pumping Tariff
TAZAMA Pipeline Losses (<i>pipeline consumption of 0.50 % & allowable pumping losses of 0.50 %</i>)	1.00%	Guided by MoE
Agency Fee (US\$/MT)	5.00	Agency Agreement
Refinery Fee (US\$/MT)	55.38	Approved ERB Processing Fee
Refinery Processing Losses	5.00%	Guided by MoE
Terminal Losses (<i>1% for LPG, 0.5% for Petrol Kerosene & Jet A-1, 0.3% for diesel & HFO</i>)	1%, 0.5%, 0.3%	Best Practice

The specific cost elements that made up the wholesale price build up were as discussed below.

(a) **Cost-Insurance-Freight**

The Cost-Insurance-Freight (CIF) of the petroleum feedstock cargo was the landed cost of the cargo at the port of Dar-es-Salaam. The quantities of the constituent components of the petroleum feedstock, which included crude oil, condensate, naphtha and diesel, were multiplied by the unit costs to derive the total monetary cost of the feedstock. The information was obtained from the suppliers' invoices which were based on the contract between the Government and the oil supplier, and ultimately used to develop a profitability statement.

(b) **Wharfage**

Wharfage was a charge assessed by a shipping terminal or port when goods were moved through the location. In that regard, the Tanzania Harbour Authority levied a statutory wharfage charge on the importation of petroleum products which was pegged at 1.25 per cent of the CIF Dar-es-Salaam cost.

(c) **Insurance**

The insurance costs were set at 0.11 per cent of the CIF. The insurance covered the cost of insuring the feedstock from Dar-es-Salaam to Ndola.

(d) **TAZAMA Storage Fee**

TAZAMA Pipeline Limited charged US\$2 per metric tonnes to the importer for any petroleum feedstock quantities that were stored at the Dar-es-Salaam tank farm on the last day of the month. The amount was agreed upon between TAZAMA and the Government.

(e) **TAZAMA Pumping Fee**

TAZAMA charged US\$49.00 per metric tonne to the importer for transporting petroleum feedstock through the pipeline from the Dar-es-Salaam tank farm to Indeni Petroleum Refinery in Ndola.

(f) **TAZAMA Pipeline Losses**

Consumption and losses for TAZAMA were set at 1.00 per cent.

(g) **Agency Fee**

The Government had appointed TAZAMA Pipeline Limited as the agent to discharge specific duties in the procurement of petroleum feedstock. The Agency fee was pegged at US\$5 per metric ton, which was agreed upon between the Government and the agent. The key function of the agent was to ensure compliance by the supplier to the terms and conditions of the supply contract.

(h) **Processing Fee**

The Indeni Petroleum Refinery Limited charged a processing fee of US\$55.38 per metric tonnes to the importer for refining petroleum feedstock.

(i) **Refinery Losses**

This cost was attributed to some petroleum feedstock quantities which were lost during the refining process due to normal processing losses and some quantities which were consumed as fuel in the process. Both the consumption and losses figures were set at 5.00 per cent.

(j) **Terminal Losses**

Terminal losses were prescribed by international norms. A loss level of 0.5 percent was allowed for petrol, kerosene and Jet A-1, whilst a loss level of 0.3 per cent was allowed for diesel and heavy fuel oil (HFO), covering handling and storage losses. A loss of 1 per cent was provided for liquefied petroleum gas (LPG).

(k) **Weighted Average Wholesale Price**

Over the years, the proportion of imported finished petroleum products to imports of spiked crude had been on the increase. Previously, 70 per cent of the fuel consumed was from spiked crude while 30 per cent was from imported finished products. However, the scenario had changed to around 50 per cent of the fuel consumed by the country was from finished products and the remaining 50 per cent from spiked crude. The change was mainly attributed to the increase in consumption of petroleum products, demanding more imports of refined products. INDENI Petroleum Refinery Limited and TAZAMA Pipelines Limited could not meet all the needs of fuel in the country due to the age of the infrastructure.

The Committee was informed that as imports of refined products continued to increase, they also influenced the pump price. Therefore, the increase in imports of refined products prompted the Energy Regulation Board to revise the model and to provide for finished petroleum products. Consequently, the model calculated the total revenue to be obtained from the sale of imported finished products. The model calculated the weighted averages of the wholesale prices for finished products (petrol and low sulphur diesel) that were required to be set in order to recover the cost of the finished products imported, and the finished products produced by the refinery.

(l) **Pump Price Build Up**

The Committee was informed that besides the cost items listed in Table 2 below, the domestic prices of petroleum products were mainly affected by two fundamentals, namely the international oil prices and the exchange rate of the United States dollar to the Zambian Kwacha.

Table 2 - Price build up for the retail prices of petrol, diesel and kerosene.

No	DETAILS	UNIT COSTS	WORKINGS
1	Wholesale Price to OMC	K9.49, K9.40, K10.98 & K11.50 per litre each for petrol, diesel, kerosene and LSG, respectively.	a
2	Terminal Fee	K0.063/litre	b
3	Marking Fee	K0.10/litre	c
4	Excise Duty (incl.) road levy	K2.07 for Petrol, K0.66 for Diesel, K0 for Kerosene and K0.66 for LSG	d
5	Ex NFT Gate		$E=(a+b+c+d)$
6	Transport Cost	K0.26 for Petrol, K0.26 for Diesel, K0.09 for Kerosene and K0.26 for LSG	f
7	OMC Margin	K0.89/litre	g
8	TOTAL (Excl VAT)		$h=(e+f+g)$
9	Dealer Margin	K0.65/litre	i
10	PRICE TO DEALER		$j= (h+i)$
11	ERB Fees	0.7%	k
12	Strategic Reserves Fund	K0.15/litre for Petrol, Diesel and Kerosene	l
13	Price before VAT		$m=(j+k+l)$
14	VAT	16%	n
15	UNIFORM PUMP PRICE	K/litre	$o=(m+n)$

The specific cost elements highlighted in the table were as discussed below.

(a) **Terminal Fee**

The Ndola Fuel Terminal (NFT) charged a fee of K0.063 per litre on petrol, diesel and kerosene uplifts at the terminal.

(b) **Marking Fee**

The price of petrol, diesel, kerosene and low sulphur gas oil incorporated a cost-line referred to as the marking fee of 9.70 ngwee per litre. The marking fee covered the cost of the chemicals used to mark petroleum products, the taxes on the chemicals and the staff costs of implementing the fuel marking programme.

- (c) **Excise Duty**
The different applicable excise duty which was inclusive of Road Levy was K2.07 per litre on petrol, K0.66 per litre on diesel, K0.66 per litre on low sulphur gas diesel. It was noted that Kerosene did not attract excise duty.
- (d) **Transport Cost**
Transport cost was the charge that was applied in all towns to equalise the pump prices to the national Uniform Pump Price (UPP). The UPP was meant to ensure that the price of fuel applied at all retail sites throughout the country were the same for particular products. Prior to the introduction of the UPP in September, 2010, the cost of petrol, diesel and kerosene at retail sites furthest from the Ndola Fuel Terminal was higher than the price obtaining at sites closer to the Terminal.
- The UPP was administered through a transport cross subsidy mechanism. OMCs or independent dealers were required to remit the transport differentials for sites closer to the fuel distribution hubs (Ndola, Lusaka, Solwezi, Mpika and Mongu) into the UPP fund, whereas the OMCs or independent dealers were reimbursed for far flung sites. This meant that “urban consumers” subsidised consumers in outlying areas.
- (e) **OMC Margin**
The ERB determined the OMC margin. This referred to the amount of money an OMC could make on each unit of petrol, diesel, kerosene and low sulphur diesel that they distributed. The OMC margin covered the costs of the OMC and allowed the OMC to earn a reasonable return on its assets. The ERB determined the OMC margin, which was at K0.89 per litre. The OMC margin was reviewed on a regular basis by the ERB using the revenue requirement methodology borrowed from the regulatory best practice for regulation of utilities.
- (f) **Dealer Margin**
The ERB determined the dealer margin. This referred to the amount of money a service station owner could make on each unit of petrol, diesel, kerosene and low sulphur diesel that they sold. The dealer margin covered the costs of the dealer and allowed the dealer to earn a reasonable return on its assets. The ERB determined dealer margin was K0.65 per litre. The dealer margin was reviewed on a regular basis by the ERB using the revenue requirement methodology.
- (g) **Strategic Reserves Fund**
The Strategic Reserves Fund (SRF) cost-line of K0.15 per litre was only applicable to petrol, diesel and kerosene. The SRF cost-line was collected from consumers through OMCs for the following purpose:

- (i) stabilisation of fuel prices.
- (ii) purchasing of Strategic Petroleum Reserves (SPRs). However, the SPRs had never been procured due to inadequate storage infrastructure. The Ministry of Energy was in the process of building fuel depots; and
- (iii) development of petroleum infrastructure, particularly construction of storage depots for the SPRs.

(h) **ERB License Fees**

The ERB license fee was set at 0.7 percent of the OMC's turnover. The fee had in the past been the principal source of funding for the ERB. However, since 1st January, 2013, the funding mechanism was changed and the institution was now funded through Government grants. The ERB collected 0.7 per cent instead of the maximum allowable figure of 0.8 per cent of turnover stipulated in the *Energy Regulation Act, Chapter 436 of the Laws of Zambia*.

(i) **Value Added Tax**

The applicable Value Added Tax (VAT) on petrol and diesel was 16 per cent. There was no VAT applied on domestic kerosene.

8.4 Transportation of Petroleum Products in Zambia

The Committee was informed that Zambia imported all its petroleum products. The majority of the petroleum was transported through the TAZAMA Petroleum Pipeline Limited and refined at the Indeni Petroleum Refinery in Ndola. The Committee was further informed that petroleum transporters were involved in two ways in the fuel supply value chain as outlined below.

- (a) transporters were involved in the transportation by road of refined petroleum products imported by the Government through TAZAMA Petroleum Pipeline Limited. The Government had contracted eight suppliers who imported refined petroleum products mainly petrol and low sulphur diesel. These were transported from the ports to the Ndola Fuel Terminal or other fuel storage depots; and
- (b) transporters uplifted and distributed petroleum products on behalf of the OMCs from the fuel depots in Ndola, Lusaka, Mpika, Solwezi and Mongu to various retail service outlets.

(i) **Overview of the Trucking Industry in Zambia**

The Committee was informed that petroleum products in Zambia were transported by several trucking companies. There were over 977 trucking companies in Zambia, over 8,000 horses and 9,000 trailers. The trucking sector employed over 10,000 people, out of which about 4,000 were truck drivers. Trucking companies in Zambia were represented by the following associations:

- (a) the Truckers Association of Zambia (TAZ);
- (b) the Copperbelt Open Truckers Association (COTA); and
- (c) the Petroleum Transporters Association of Zambia (PTAZ).

The above highlighted associations transported about 30 per cent of Zambia's freight market share. Other key players included manufacturers of truck trailers which were supplied to the local truck companies. The majority of the trucking companies were located in the high production regions of Lusaka and Copperbelt provinces. However, there was a growing trend of newly registered companies in North Western Province because of the newly opened copper mines. Other small trucking companies were evenly distributed across the remaining provinces in Zambia.

(ii) **Foreign Fuel Transporters Involvement in the Zambian Market**

The Committee was informed that the National Transport Policy prescribed that local or indigenous Zambian road freight operators should have a market share of 15 per cent of the international bound road freight transport. The low market share of Zambian road freight operators was partly attributed to the practice of foreign ports favouring their local operators.

The Committee was further informed that foreign transport and logistics service providers were estimated at 70 per cent of the freight transportation market. This group was dominated by South African nationals through the southern corridor to and from Richards Bay and Durban in South Africa, and Tanzanians through the Dar es Salaam corridor. A smaller percentage was dominated by the Zimbabwean transporters through the Zimbabwe/Mozambique corridor to and from Beira. The Committee learnt that on some corridors such as the Dar es Salaam corridor, the percentage was even higher where 91 per cent of cargo was transported by Tanzanian transporters, while Zambian transporters accounted for about 6 per cent and 3 per cent by Malawian and Democratic Republic of Congo.

(iii) **Factors leading to Domination of Foreign transporters in the Local Market**

- (a) The liberalisation of the Zambian economy in the early 1990s created a conducive business environment for foreign investors and led to the dominance of foreign companies in almost all sectors of the economy. As a result of this liberalised regime, foreign transporters could bring trucks and tankers into the country and establish a domestic presence as long as the company was formally registered with the Patents and Companies Registration Agency (PACRA), Zambia Revenue Authority (ZRA) and Road Transport and Safety Agency (RTSA).
- (b) The Southern Africa Development Community (SADC) Protocol on Transport, Communications and Meteorology (PTCM)

aspired to liberalise the transport market access of member states. Zambia, like all its neighbouring countries, was a signatory to SADC-PTCM and, therefore, ascribed to the principles of the Protocols, particularly Articles 5 and 6 which espoused liberalisation of markets for transport and logistics. This had facilitated a conducive environment for foreign truck operators to dominate the Zambia freight market. Generally, competition from foreign firms that had established a domestic presence was permitted in most SADC countries although it could be restricted in terms of the levels of foreign equity allowed through measures such as indigenisation rules.

- (c) There were restrictions on backhaul whereby trucks could export goods but were not allowed to import goods back to their home countries on their return leg. This was particularly problematic for landlocked countries like Zambia. The Committee learnt that when foreign truckers brought imports destined for Zambia and the Democratic Republic of Congo (DRC), they reduced the rates for the movement of Zambia's exports termed as backhaul rates that were uneconomical to local transporters.
- (d) Local transporters did not possess adequate capacity to fulfil the demands for cross border freight and logistics services. However, the Committee was informed that a number of measures had been implemented by both the Government and the transporters to strengthen the capacity of local transporters in order to make them competitive.

8.5 Status of Oil and Gas Exploration in Zambia

The Committee was informed that the status of oil and gas exploration was as set out below.

(i) Tullow Zambia B.V. Limited

The Committee was informed that Tullow Zambia B.V. Limited was located in Block 31 and was granted a petroleum license in 2016. Since acquiring the license, the company had completed the interpretation of an integrated model for the acquired aerial Full Tensor Gradiometer (FTG) which indicated the presence of a geological basin for possible oil and gas accumulation. No further detailed exploration work had been conducted on and around Lake Tanganyika area. The Committee further learnt that the Company was in the process of relinquishing the petroleum exploration license PEL 028 over Block 31 and transfer its 97.5 per cent interest to Geo Petroleum Limited, the minority shareholder with 2.5 per cent interest in the license. However, the Ministry of Mines and Minerals Development had referred the matter to the Attorney General for further legal guidance.

(ii) **Sargas Oil Limited**

The Committee was informed that Sargas Oil Limited was granted a petroleum exploration license PEL 029 over Block 54 in 2016. The company had since conducted an Environmental Project Brief (EPB) which was approved by the Zambia Environmental Management Agency (ZEMA) on 9th December, 2016. Sargas Oil Limited's FTG report indicated the presence of a geological basin (Mpulungu Basin) with potential of oil and gas accumulation. In that regard, Sargas Oil Limited would continue to conduct geological mapping activities.

(iii) **Mafula Energy Limited**

The Committee was informed that Mafula Energy Limited was granted Petroleum Exploration License PEL 008 over Block 32 in 2011. Since 2011, the company had conducted various works that had culminated into the identification of a Well that was indicative of the presence of a geological sedimentary basin.

(iv) **ZCCM Investments Holdings Plc.**

The Committee was informed that ZCCM Investment Holdings Plc (ZCCM-IH) was a Government investment vehicle in the upstream petroleum sector over the Government petroleum blocks. The company was in charge of six blocks namely: 1, 17, 27, 39, 44 and 52. The company had conducted an Environmental Project Brief (EPB) in Block 1, which was approved by ZEMA in 2018. However, the company took long to commence exploration works and a notice of cancellation was issued by the Petroleum Committee. This compelled ZCCM-IH to enter into partnership agreements with Oranto Petroleum Limited and Niger Delta Exploration and Production of Nigerian petroleum companies, and commenced exploration work in Block 1. However, the petroleum exploration license expired on 6th December, 2019 and the matter had been tabled before the Petroleum Committee for consideration.

Regarding Blocks 17, 27, 39, 44 and 52, the Committee was informed that ZCCM-IH had commenced conducting Environmental Project Briefs (EPBs) for approval by ZEMA in accordance with the *Environmental Management Act, No. 12 of 2011*. The company, in collaboration with the identified partners, was expected to commence exploration works after the approval of the EPBs by ZEMA.

In addition, ZCCM-IH had identified Instinct Energy Limited of Australia as a partner in the exploration work of Blocks 39 and 44. The company had also signed a farm-out agreement and registered Oranto Oil Block in accordance with the terms of the farm-out agreement. Specifically, the two parties registered Oranto Oil Block as a Special Purpose Vehicle (SPV) which was jointly owned by Oranto Petroleum Limited and ZCCM-IH with a

shareholding of 90 per cent and 10 per cent, respectively. Consequently, Oranto Oil Block was expected to spearhead the exploration and development of Blocks 17 and 27. In that regard, ZCCM-IH had made an application to the Minister of Mines and Minerals Development for consent to assign/transfer Petroleum Exploration Licences PEL 032 and PEL 033 to Oranto Oil Block. The application was made in accordance with *the Petroleum (Exploration and Production) Act, No. 10 of 2008*, and was yet to be approved by the Minister of Mines and Minerals Development.

(v) **Barotse Petroleum Company Limited**

The Committee was informed that Barotse Petroleum Company Limited had not commenced exploration work since the two petroleum licenses were granted in Blocks twenty and twenty one in 2011. The company defaulted and given thirty one days to remedy the breaches for non-performance and non-payment of statutory fees. The company was one of the two licences under judicial review.

(vi) **Tiiseza Zambia Limited**

The Committee was informed that the application for an exploration license by Tiiseza Zambia Limited for block 18 was rejected in 2013 due to inadequate funding commitment by the company. However, the application was subjected to a review by the Petroleum Committee and the company was granted a petroleum exploration license in December, 2019.

8.6 Challenges faced in the Petroleum Industry

The Committee was informed that both the downstream and upstream petroleum sub sectors had challenges which needed to be addressed in order to develop the petroleum industry in Zambia. The challenges relating to both sub sectors were as outlined below.

8.6.1 Down Stream Petroleum Sub Sector

8.6.1.1 Inadequate Parking Spaces

The Committee was informed that there were inadequate parking areas along the import areas and offloading terminals. The lack of adequate parking space created congestion and disorderliness, which some unscrupulous people had taken advantage of and engaged in criminal activities such as illegal fuel vending. The problem was further exacerbated by the lack of adequate public conveniences. This situation had posed safety, health and environmental risks to people conducting business in these areas.

8.6.1.2 Lack of Capacity to Enforce Regulations and Standards in the Petroleum Industry

The Committee was informed that Government institutions such as the Zambia Metrology Agency, Zambia Compulsory Standards Agency and Zambia Bureau of Standards who were mandated to enforce regulations and standards in the petroleum sub sector did not have adequate capacity to discharge their functions effectively. Some of these capacities related to human resource and technical expertise, equipment and financial resources. As a result, institutions such as the Zambia Metrology Agency and Zambia Bureau of Standards were unable to conduct the necessary technical tests such as the non-destructive tests on the integrity of tankers and endurance breaking tests on horse and trailers due to lack of capacity.

8.6.1.3 Failure to Inspect Underground Storage Tanks

The Committee was informed that underground petroleum storage tanks were not subjected to periodic inspections due to lack of testing equipment. The Committee learnt that the only time that these facilities were inspected was during the pre-commissioning stage. It was, however, noted that underground storage tanks were supposed to be subjected to thorough and complete testing periodically. Such tests were necessary in order to guarantee durability and quality of the infrastructure.

8.6.1.4 Non-Harmonised Regulations and Standards

The Committee was informed that the petroleum regulations and standards were not harmonised for the SADC, COMESA and the East African Community. This had resulted in poor compliance to local requirements by foreign transporters. Further, the differences in regulations and standards rendered tanker trucks which were compliant in one country being non-compliant in other countries. This problem mainly affected Zambian transporters whose tankers were found to be non-compliant in other countries and this meant that they could not lift cargo on their return legs.

8.6.1.5 Low Market Share by Local Petroleum Transporters

The Committee learnt that there were more foreign fuel transporters plying their trade on the Zambian market than local transporters. The foreign transporters and logistics service providers were estimated to be about 70 per cent of the freight transportation market. This disparity was mainly attributed to the fact that the foreign transporters partnered with foreign logistics companies in Zambia. The high number of foreign transporters had made it very difficult for local players in the transport sector to grow and expand their operations.

8.6.1.6 Unlicensed Bitumen Dealers

The Committee was informed that there were some companies that were not registered with the Energy Regulation Board (ERB) and therefore did not pay ERB fees but were allowed to supply bitumen on the market. The Committee was informed that this trend was mainly prevalent among foreign companies who supplied nearly 80 per cent of the bitumen used for construction of roads in Zambia. Naturally, this scenario disadvantaged legitimate companies who were in the same business.

8.6.1.7 Concentration of Service Station in Urban Areas

The Committee was informed that there was a mismatch in terms of the numbers and sites of filling stations in urban areas compared to rural areas. The Committee learnt that out of the 344 filling stations in the country, only eleven were situated in rural areas and these were located in Lusaka, Copperbelt and towns along the line of rail and provincial centres. This situation clearly showed that most rural parts of the country did not have service stations and consequently had difficulties to access fuel.

8.6.1.8 Limited Usage of Liquefied Petroleum Gas

The Committee was informed that the demand for Liquefied Petroleum Gas ((LPG) in Zambia, especially at household level, was very low, as most people did not know about the product coupled with safety concerns among its users. This was despite the fact that LPG was an alternative source of energy for domestic purposes such as cooking and heating.

8.6.1.9 Inadequate Storage and Filling Facilities for LPG

The Committee was informed that Zambia had limited storage and filling facilities for LPG. The Committee further learnt that as at June, 2019, there were nine LPG storage and filling facilities in the country. Lamentably, all the nine facilities were located in Lusaka, Ndola and Kitwe, making access to LPG for domestic consumers, especially in rural areas, very difficult.

8.6.1.10 Importation of Petroleum Products by Road

The Committee was informed that about 40 per cent of petroleum products consumed in Zambia were produced by INDENI Petroleum Refinery Limited, with the remaining 60 per cent imported by road. The Committee learnt that the importation of petroleum products by road was not only the most expensive means of transporting petroleum products, but also significantly reduced the lifespan of the roads and therefore, increased the burden on the treasury for road repairs.

8.6.1.11 Lack of Disclosure of information on Statistics for the Petroleum Industry

The Committee was informed that there was lack of regular disclosure of statistics in the down-stream petroleum sub sector. The sub sector lacked vital information to help the public make informed decisions. Variables such as prices, pricing structure, supply source and volumes of imports, differences between domestic and international prices were not regularly published.

8.6.1.12 Limited Storage Capacity

The Committee was informed that there were inadequate storage depots in most parts of the country. The challenge of storage capacity had a direct impact on the turnaround time for transporters who often times had to wait for long periods of time for their stock to be offloaded, or before they were loaded for local distribution of petroleum products to retail service stations and commercial clients. The prolonged stay at fuel storage depots usually created congestion and overcrowding.

8.6.1.13 Illegal Fuel Vending

The Committee was informed that illegal fuel vending was a major problem in the sub sector. Through the on-going fuel marking programme, it was established that there had been illegal fuel dumping and adulteration in Zambia. Specifically, as of September, 2018, the key results of the sampling and testing exercise revealed that there were high levels of tax evasion through dilution of domestic products with unmarked products and kerosene. This had resulted in Government losing revenue through the non-remittance of the applicable taxes. Fuel adulteration was most rampant along the North-South transit corridor, particularly from the Copperbelt to Livingstone.

8.6.1.14 Poor State of the TAZAMA Pipeline Limited and Indeni Petroleum Refinery

The Committee was informed that one of the challenges of the downstream sub sector stemmed from the infrastructure aspect. The key infrastructure namely: the TAZAMA petroleum pipeline; and Indeni petroleum refinery that supported the petroleum supply value chain had existed for over forty years. The two assets were experiencing major operational inefficiencies because of the wear and tear of most of the equipment. Therefore, there was an urgent need for capital investment to upgrade the two assets.

8.6.1.15 Lack of a Strategic Plan

The Committee was informed that there was no strategic plan that addressed the various stakeholders' concerns. This was worsened by

inadequate coordination among stakeholders in stock controlling and monitoring of fuel stocks in the country. This had caused intermittent operations from both the supply chain side and the value addition side.

8.6.1.16 INDENI's Inability to Produce Low Sulphur Diesel

The Committee was informed that one of the impediments in the downstream petroleum sub sector was the failure by Indeni Petroleum Refinery to produce low sulphur diesel due to lack of a Diesel Hydrotreater Unit. The problem was exacerbated by the fact that most modern machines and equipment were designed to operate on cleaner fuels. This had further pushed the dependence on importation of low sulphur diesel.

8.6.1.17 Slow Progress of Construction of Provincial fuel Depots

The Committee was informed that the construction of provincial fuel depots had not progressed as envisaged. The Committee learnt that the programme of constructing fuel depots started ten years earlier. To date, only six depots in Lusaka, Northern, North Western, Muchinga and Western provinces had been completed under phase one. The other depots under phase two were far from being completed with the exception of Mansa Fuel Depot which was 98 per cent complete.

8.6.1.18 High Import Bill

The Committee was informed that Zambia's import bill for petroleum products was estimated at US\$600 million in 2017. This translated into an annual consumption rate of 1.33 million metric tonnes of petroleum products. However, the Committee learnt that if a blending mandate of 10 per cent for bio-ethanol and 5 per cent for bio-diesel were implemented, the country could save at least 6 per cent of its import bill.

8.6.1.19 Unfair Treatment of Zambian Truck Operators

The Committee was informed that although Zambia's neighbouring countries in the SADC region were signatories to the SADC Protocol on Transport, Communication and Meteorology, they had not reciprocated in liberalising their transport and logistics markets. This meant that Zambian transport operators faced numerous barriers to lift cargo from most SADC member states. Consequently, Zambian truck operators carrying cargo from Zambia destined to seaports in Dar es Salaam, Walvis Bay, Beira and Nacala Corridors returned empty without backloads.

8.6.1.20 Monopoly in the Supply and Delivery of JET A1 and LPG

The Committee was informed that local transporters were not given an opportunity to participate in the transportation of Jet A1 fuel and LPG. This

role was mainly executed by OMCs who had been awarded contracts by the Government to supply the two commodities. The reason advanced for the exclusion of local transporters was lack of capacity. However, it was ascertained through the Petroleum Transporters Association of Zambia that capacity existed among the local transporters to the extent that nearly 100 tankers were available for such an exercise.

8.6.1.21 Lack of Strategic Fuel Reserves

The Committee was informed that due to inadequate storage infrastructure, the provincial depots were exclusively being utilised as operational depots. As result, the country did not have any strategic reserves. Further, the Committee was informed that despite having a Strategic Reserve Fund, no strategic petroleum reserves had been procured.

8.6.2 Upstream Petroleum Sub Sector

8.6.2.1 Inadequate Geological and Geophysical (Seismic) Data

The Committee was informed that Zambia was regarded as a frontier country in the upstream petroleum sub sector, and hence it was unable to attract investment into the sector to conduct exploration. In order to attract investment in the upstream sub sector, the Government, through the Ministry of Mines and Minerals Development, required regional seismic data. The expected cost of acquiring seismic data along with the five seismic lines/profiles was estimated at US\$42 million, excluding mobilisation costs.

8.6.2.2 Lack of a Policy for the Upstream Sub Sector

The Committee was informed that the 2019 National Energy Policy had not taken into account the specific needs of the upstream sub sector. The Ministry of Mines and Minerals Development was excluded from the implementation framework of the Policy. In the absence of a coherent and dedicated policy for the oil and gas sector, it would be difficult to attract investors in a sector that was highly risky and demanded huge capital injection.

8.6.2.3 Lack of specialised geological equipment and infrastructure

The Committee was informed that the upstream petroleum sub sector suffered from lack of specialised equipment and infrastructure. Given the specialised nature of exploration activities, it was not possible to perform any work without the appropriate equipment. Further, investors faced huge challenges as a result of lack of equipment in the country and this had increased the cost of doing business as they had to hire equipment or import it from other countries. This entailed that investors incurred huge costs even before they commenced activities.

8.6.2.4 Non-Completion of the Strategic Environmental Assessment for Petroleum Exploration and Development

The Committee learnt that under Section 23 (1) of the *Zambia Environmental Management Agency Act, No. 11 of 2011*, it was mandatory to carry out a Strategic Environmental Assessment (SEA) for a policy, plan or programme that may have an adverse effect on the environment. The Committee further learnt that in 2010 and prior to the commencement of licensing for oil and gas exploration, the Ministry of Mines and Minerals Development began the process of conducting preliminary SEA for Petroleum Exploration and Development in petroleum blocks. However, the SEA was not finalised before licensing due to financial constraints.

8.6.2.5 Failure to Conduct Comprehensive Exploration

The Committee was informed that the country had not carried out comprehensive exploration works to determine the potential of oil and gas, particularly on the Zambian side of Lake Tanganyika, despite the lake's proximity to the East African Rift Valley. This had led to high uncertainty regarding Zambia's oil and gas resources and invariably discouraged investments in the upstream sub sector.

8.6.2.6 Failure to Market Zambia's Upstream Sub Sector

The Committee was informed that owing to lack of well packaged geological and geophysical data for the upstream sub sector, Zambia could not competitively participate at international oil and gas trade shows, fairs and exhibitions. The Committee learnt that effective participation at such events had the potential to raise the visibility of the upstream sub sector in Zambia, and possibly attract potential investors.

8.6.2.7 Failure to conduct inspections in Petroleum Exploration Blocks

The Committee was informed that due to resource constraints, the Geological Survey Department was unable to conduct inspections in petroleum exploration blocks. In accordance with the *Petroleum (Exploration and Production) Act, No. 10 of 2008*, inspectors were supposed to conduct field assessments to check on the activities of petroleum exploration companies.

8.6.2.8 Inadequate Institutional Capacity in the Upstream Sub Sector

The Committee was informed that Zambia was known for base metal mining and hence the expertise and institutional capacity in the upstream sub sector was still very low. The technocrats in the Ministry of Mines and Minerals Development lacked specialisation in areas such as petroleum exploration and management; petroleum geology, petroleum geophysics,

environmental management, petroleum legislation and regulation, including licensing.

8.6.2.9 Limited Budgetary Allocation to Support the Development of the Upstream Sub Sector

The Committee learnt that the Ministry of Mines and Minerals Development was not adequately funded to conduct inspection of petroleum exploration blocks, geological-geophysical information generation, marketing of petroleum geo-data packages, and environmental management.

8.6.2.10 Cumbersome License Renewal Procedures

The Committee was informed that the process of renewing a license was tedious and cumbersome. Stakeholders lamented that even when a company had complied with all the necessary requirements during the first license tenure, they were still subjected to the lengthy license renewal process, which tended to discourage investors.

8.7 Opportunities in the Petroleum Industry

The Committee was informed that the challenges faced in the petroleum industry could be easily transformed into great opportunities to grow the industry. These included the ones listed below.

8.7.1 Downstream Petroleum Sub Sector

- (i) *The Petroleum Act, Chapter 435 of the Laws of Zambia* did not explicitly provide for the integration of bio-fuels in the petroleum industry. Further, the law was oblivious to the need to promote the participation of Zambians in the petroleum industry. These and other lacunas in the law were sufficient to propel the need to review and reform the current legislative framework regarding the downstream petroleum sub sector. A review of the law should encapsulate the need to promote the participation of Zambians and reflect the current needs of the industry, taking into consideration new best practices in the industry as well as internationally recognised practices, advancements and conventions.
- (ii) Bio-fuels presented an opportunity to substitute, through appropriate blending, petroleum product supply. This would not only enhance the quantities produced but also contribute towards efforts to reduce air pollution. Furthermore, the use of bio-fuels could be an alternative domestic source of energy in Zambia, considering the power deficit that the country was experiencing.

- (iii) The geo-political location of Zambia in the SADC Region could make it a distribution hub for petroleum products to its neighbouring countries.
- (iv) Infrastructure development to improve the efficiency of the refinery and pipeline, as well as to modernise the refinery so that it could produce low sulphur diesel and process pure crude oil presented significant economic opportunities. Increased operation efficiency of the two facilities would enable Zambia to be able to export petroleum products to other countries at a relatively competitive price. Further, the ability to produce low sulphur diesel would assure sustainability of the refinery as its products would be readily available on the regional market.
- (v) The accreditation of the Zambia Bureau of Standards (ZABS) Petroleum facilities and laboratory to the international standard, ISO/IEC 1702. With enhanced capacity, the country could leverage the status that ZABS holds and use its facilities as a regional reference laboratory.
- (vi) In the advent of challenges of hydropower, petroleum fuels such as diesel, petrol and fuel oil could be used as alternatives to generate electricity.
- (vii) Liquefied Petroleum Gas could be used as a suitable replacement for charcoal and wood fuel for domestic purposes.
- (viii) The challenge of poor infrastructure in the downstream petroleum sub sector presented an opportunity for new infrastructure investments. Rural areas in particular continued to face challenges with regard to inadequate service stations. Investment in rural areas could open up opportunities for more economic activities.
- (ix) The desire by the Government to develop the bio-fuel industry presented prospects to build more storage facilities that could be used to accommodate the product and contribute to the growth of the petroleum industry.

8.7.2 Upstream Petroleum Sub Sector

- (i) Zambia was geologically located within the Great East African Rift Valley system where recent oil and gas discoveries had been made in Uganda and Kenya. Further, Zambia shared a border with Angola, where high petroleum potential was proven. In the light of the foregoing, it was highly likely that Zambia could have petroleum too.

- (ii) The Ministry of Mines and Minerals Development had demarcated a total of thirty eight petroleum blocks of which twenty were still available for prospective licensing. The sub sector still had investment opportunities.
- (iii) Zambia was considered a politically stable country, and thus an ideal investment destination. This position could be used to attract more investment in the up-stream petroleum sub sector.
- (iv) Zambia's experience in large-scale mining of over eighty years, coupled with geological occurrence of sedimentary basins could be used to explore for hydrocarbons in the country.

8.8 Recommendations on how to Establish a Sustainable Petroleum Industry

Stakeholders submitted that both the downstream and upstream sub sectors could be developed by adopting the recommendations set out below.

8.8.1 Downstream Petroleum Sub Sector

- (i) The Ministry of Energy, being the appointed agents for procurement of petroleum products, should ensure that they promoted transparency and competition in all its procurement undertakings. This called for measures to ensure that the Ministry planned for all procurements and published its Annual Procurement Plans. This would avert the need for emergency procurements. Further, the Ministry of Energy should avoid employing less competitive methods of procurement such as Direct and Limited Bidding in order to achieve value for money on the products being procured.
- (ii) There was need to recapitalise the refinery and pipeline in order to modernise and increase their capacity, so that the two facilities could meet the demands, specifications and quantities of petroleum products by the Zambian public.
- (iii) Given that testing of petroleum products required a suite of various parameters, it was imperative for the Government to invest in infrastructure such as laboratories and testing facilities for petroleum products to ensure quality and safety in the industry
- (iv) Need to build capacity of institutions mandated to provide regulatory services and standards in order to support effective management and policy formulation for the petroleum industry.
- (v) Engagement of local authorities for implementation of designated safe and secure parking spots along the petroleum import corridors and

offloading terminals to reduce safety, health, environment and security risks.

- (vi) Need to increase rural investment incentives through differentiated rural dealer margins would assist to curb the concentration of service stations in urban areas because margins would be higher in rural areas than urban.
- (vii) The Government, through the Zambia Development Agency, should consider the creation of multi facility economic zones in several rural areas to help promote local and foreign investment.

8.8.2 Upstream Petroleum Sub Sector

- (i) In order to create a transparent environment and possibly attract more investors in the upstream petroleum sub sector, the Government should put in place a communication and publicity strategy that would communicate the progress and milestones recorded towards exploration work on oil and gas discovery in Zambia. Such information should include areas that had not being explored which may have potential for oil and gas.
- (ii) The Government should consider undertaking benchmarking tours and surveys to landlocked countries in the region to learn how those countries managed their respective petroleum industries. Such studies should be premised on identifying systems or mechanisms that had been put in place in order to determine best international practices and standards, with a view of optimising the Zambian petroleum industry.
- (iii) Generation of preliminary geo-information should be considered a matter of priority before any area could be opened up for bidding.
- (iv) As the upstream sub sector was relatively new with limited numbers of qualified personnel, there was need for specialised training for officers in the Ministry of Mines and Minerals Development in order to effectively carry out their duties.
- (v) The Hydro Carbon Unit in the Ministry of Mines and Minerals Development should operate at full capacity with human resource trained to manage the demands of the sector.
- (vi) The Government should consider the formation of a national petroleum company, as this was an important statutory institution which would support the development and regulation of the upstream petroleum sector in the country. The formation of the National Petroleum Company (NPC) was provided for in the *Petroleum*

(Exploration and production) Act, No. 10 of 2008 and Petroleum (Exploration and Production) (National Petroleum Company) Regulations of 2011.

8.9 COMMITTEE'S OBSERVATIONS AND RECOMMENDATIONS

The Committee notes that no major developments have occurred in the petroleum industry in Zambia in the last four decades. The downstream petroleum sub sector is experiencing operational challenges due to old infrastructure and equipment both at Indeni Petroleum Refinery and TAZAMA Pipeline Limited. Further, the upstream sub sector is stagnant at exploration phase for a long time without transitioning to the production stage. Taking into account the findings from its meetings with various stakeholders, the Committee presents its observations and recommendations as set out below.

8.9.1 Downstream Petroleum Sub Sector

8.9.1.1 Address Infrastructure Challenges in the Downstream Petroleum Sub Sector

The Committee observes that the two critical petroleum infrastructure in the country, namely the Indeni Petroleum Refinery and the TAZAMA Petroleum Pipeline, were built over forty years ago and are in dire need of upgrades. Owing to the aged infrastructure, the two facilities are struggling to operate at their optimal capacity and they fail to meet the current increased demand for petroleum products in the country.

The Committee, therefore, recommends that the Government should urgently recapitalise Indeni Petroleum Refinery Limited so that it can be rehabilitated and upgraded in order to increase its efficiency and reduce operational losses to acceptable levels. The Committee further recommends that the recapitalisation of the refinery should be preceded by a feasibility study to determine the economic and commercial viability of renewed investments in petroleum infrastructure.

With regard the TAZAMA pipeline, the Committee recommends that the Government should, as a long term solution, consider constructing a new pipeline as this was the most efficient and affordable means of transporting liquid petroleum products.

8.9.1.2 Need to Procure a Diesel Hydrotreater Unit

The Committee observes that Zambia is a signatory to the SADC Regional Framework for Harmonisation of Low Sulphur Fuels and Vehicle Emission Standards. The implication of this is that all countries that have committed to this agreement are expected to become compliant by producing low sulphur diesel by 2022. The ability of Indeni Petroleum Refinery to produce low sulphur diesel would assure sustainability of the refinery as its products

would be readily acceptable on the regional market. The Committee further observes that since signing the agreement, Zambia has not made any significant efforts towards the procurement of a diesel hydrotreater which is estimated to cost US\$250 million.

In light of the above, the Committee urges the Government to expedite the process of procuring a diesel hydrotreater to enable Indeni Petroleum Refinery begin to process low sulphur diesel and consequently meet the regional requirement for the production of cleaner fuels as stipulated in the SADC Regional Framework for Harmonisation of Low Sulphur Fuels and Vehicle Emission Standards.

8.9.1.3 Review of the Petroleum Act, Chapter 435 of the Laws of Zambia

The Committee observes that the *Petroleum Act, Chapter 435 of the Laws of Zambia* was enacted in 1930 and therefore outdated and inadequate to address the challenges of the downstream sub sector. For instance, the Act still refers to local councils as institutions mandated to regulate and issue licenses in the downstream sub sector when this role is currently under the Energy Regulation Board. Other issues that are absent in the Act include, but not limited to, the integration of bio-fuels in the country's energy mix, regulation of filling stations and the fuel marking programme.

The Committee further observes that the Energy Policy has been reviewed twice in 2008 and 2019 but the *Petroleum Act, Chapter 435 of the Laws of Zambia* has remained in its current form, rendering it out of touch with the Energy Policy. The Committee, therefore, recommends that the *Petroleum Act* be urgently reviewed in order to align it with the key changes and developments that have taken place in the downstream petroleum sub sector since its enactment in 1930.

8.9.1.4 Failure to comply with regulations of the Public Procurement Act, No. 12 of 2008

The Committee observes the non-compliance by the Ministry of Energy with stipulated guidelines and procedures of the *Public Procurement Act No. 12 of 2008* to prepare Annual Procurement Plans. The Committee further notes that in accordance with Section 42 of the *Public Procurement Act*, the Ministry of Energy as the procuring entity on behalf of the Government is required to prepare and submit Annual Procurement Plans to the Zambia Public Procurement Agency (ZPPA). However, the Committee observes that the Annual Procurement Plans for 2018 and 2019 that were submitted to ZPPA do not contain any provisions for procurement of commingled petroleum feedstock and petroleum products. The Committee finds this unacceptable as it is not possible that there was no procurement of petroleum in the two years. If left unchecked, this anomaly has the

potential to erode the confidence of stakeholders in the downstream petroleum sub sector.

The Committee, therefore, recommends that henceforth, the Government should prevail over the Ministry of Energy as the procuring entity to ensure that it complies with all the procurement requirements prescribed in the *Public Procurement Act*.

8.9.1.5 Failure to Publish Annual Procurement Plans

The Committee observes that the Ministry of Energy as the procuring entity does not publish Annual Procurement Plans as prescribed under *Statutory Instrument No. 63 of 2011, the Public Procurement Regulations, 2011, Regulation 26(4)*. The Committee, therefore, recommends that henceforth the Ministry of Energy should abide by the provisions of the law and begin to publish the Annual Procurement Plans as required.

8.9.1.6 Allocation of Resources to Actualise the 2019 Energy Policy

The Committee observes that the 2019 Energy Policy has an elaborate implementation plan with cost estimates. However, the actualisation of the 2019 Energy Policy will largely depend on availability of resources. Without directing the necessary resources towards implementation of the policy objectives and measures envisaged in the new Energy Policy, it will be difficult to achieve the desired expectations of the document.

The Committee, therefore, recommends that the Government should channel resources to the Ministry of Energy to enable it implement the 2019 National Energy Policy as highlighted in the policy implementation plan.

8.9.1.7 Curb Fuel Illegal Vending

The Committee observes that there is a huge problem of illegal fuel vending in the sub sector. This illegal activity is compromising the quality of petroleum products and depriving the country revenue through tax evasion by unscrupulous vendors involved in this vice. The Committee notes that the Government through the Energy Regulation Board has introduced the fuel marking programme to curb this vice.

The Committee urges the Government to urgently devise other strategies to deal with the problem of illegal fuel vending, so that the country can begin to realise the revenue that is being lost as a result non-remittance of the applicable taxes. The Committee further recommends that the Government should consider adopting the Fuel Marking Seal technology which has helped to reduce the problem of fuel dumping and adulteration in other countries in the region.

8.9.1.8 Lack of Rural Service Stations

The Committee notes that some rural areas in the country do not have service stations. Out of the 344 filling stations in the country, only 11 are situated in rural areas. This has resulted in far flung areas to be susceptible to persistent fuel deficits and inevitably serviced by illegal fuel vendors with questionable petroleum products. In this regard, the Committee urges the Government to expedite the process of constructing service stations in rural areas.

8.9.1.9 Harness the Use of Liquefied Petroleum Gas

The Committee observes that the country has not taken advantage of Liquefied Petroleum Gas (LPG) as an alternative source of energy for domestic purposes such as cooking and heating. The Committee further notes that only 30 per cent of LPG produced in the country is consumed locally and the rest of the product is exported. This is despite the fact that LPG is an environmental friendly product that can help mitigate the electricity deficit that the country is experiencing.

In light of the above, the Committee recommends that in order to ensure that more people are aware of the benefits of using LPG, the Government should intensify efforts to sensitise the public on the benefits of using LPG.

8.9.1.10 Storage Facilities for Liquefied Petroleum Gas

The Committee observes that there are only nine storage and filling facilities in the country for LPG. These facilities are located in Lusaka, Ndola and Kitwe. The uneven distribution of these facilities has made it very difficult for the rest of the country to, especially people in rural areas to access LPG. The Committee, therefore, recommends that the Government should construct more storage facilities across the country to ensure that more people have access to the product.

8.9.1.11 Develop Adequate Standards for the Petroleum Sub Sector

The Committee notes that the downstream petroleum sub sector does not have the necessary standards required for the petroleum industry; the problem was further compounded by the lack of harmonised standards in the region. This is despite the fact that a robust petroleum industry should be founded on strict regulations and standards. The Zambia Bureau of Standards does not have testing equipment to enable it conduct full analysis of petroleum products in order to confirm the quality of petroleum products.

Given the above challenge, the Committee recommends that the Government should urgently channel the necessary financial resources to the Zambia Bureau of Standards to enable them develop standards in line with national and international requirements. Further, the Committee

urges the Government to ensure that the Institution has equipment and testing laboratories in order to conduct the necessary tests required in the petroleum industry.

8.9.1.12 Enhance the Capacity of Regulatory Institutions

The Committee observes that the capacity of the quality infrastructure institutions such as the Zambia Metrology Agency, Zambia Compulsory Standards Agency and Zambia Bureau of Standards is weak and hence cannot effectively discharge their duties effectively. All the three institutions lack adequate infrastructure, equipment and technical expertise required in the petroleum industry.

The Committee urges the Government to ensure that the Zambia Metrology Agency, Zambia Compulsory Standards Agency and Zambia Bureau of Standards are adequately funded to enable them procure equipment and set up modern laboratories for conducting the various technical tests and discharge other functions as mandated by law.

8.9.1.13 Harmonise Regional Petroleum Regulations and Standards

The Committee observes that the regional petroleum regulations and standards are not harmonised in the region. This serves as a trade barrier to Zambian transporters as their tankers fail to meet the prescribed standards in other countries, while foreign transporters are able to conduct business in Zambia without any barriers.

In light of the above, the Committee strongly urges Government, through the necessary diplomatic protocols and the Zambia Metrology Agency who are currently chairing the Metrology Cooperation Structures at SADC, to harmonise the regulations and standards in order to remove the technical barriers to trade and improve compliance for all stakeholders in the region.

8.9.1.14 High Tax Regime for Petroleum Products

The Committee observes that both the wholesale price build up and pump price build up constitute many taxes. Some of these taxes include but are not limited to refinery losses, TAZAMA pipeline losses and terminal fees. As a result of these multifarious taxes, Zambia is considered as having one of the highest tax regimes and high fuel prices in the region.

The Committee recommends that the Government should urgently review the tax regime for all petroleum products in order to ascertain the actual cost of fuel, and reduce the cost of doing business and the consumer pump price.

8.9.1.15 Inadequate Parking Facilities at Fuel Depots and Border Areas

The Committee observes that there are inadequate parking facilities at fuel depots and border areas. This has led to congestion and disorderliness. Because of the prolonged stay of tankers at the depots and border areas, some unscrupulous people have taken advantage of the situation and engage in illegal activities such as fuel vending.

In light of this concern, the Committee recommends that the Government should create more secure parking areas and off-loading terminals along the petroleum import corridors and fuel depots. The Committee further recommends that the designated parking areas should be accompanied by well serviced public conveniences.

8.9.1.16 Lack of Strategic Plan

The Committee observes that there is no strategic plan to guide the operations of the petroleum industry in Zambia. It is the considered view of the Committee that both the downstream and upstream petroleum sub sectors should be guided by a strategic plan for better decision making, coordination and utilisation of resources in an efficient manner. In this regard, the Committee urges the Government to expedite the process of developing a strategic plan for the petroleum industry.

8.9.1.17 Lack of Strategic Petroleum Reserves

The Committee observes that the country does not have storage infrastructure for strategic stock of petroleum products. The Committee further notes that the programme to construct bulk storage depots was born out of the need to ensure that the country has strategic petroleum reserves. However, these facilities are being used as operational depots as opposed to serving the purpose of strategic petroleum depots. The Committee, therefore, urges the Government to build enough storage depots in order to ensure that the country has strategic petroleum reserves.

8.9.1.18 Accelerate the Integration of Bio-fuels in the National Energy Mix

The Committee observes that the production of bio-fuels is low and has not been adequately integrated into the national energy mix, especially for the transport sector. The Committee, therefore, urges the Government to provide the necessary resources to the Ministry of Energy to set up bio-fuel blending facilities.

8.9.1.19 Increase the Participation of Local Players in the Transportation of Jet A1 Fuel

The Committee observes that the Government has awarded contracts to a few OMCs for the supply and delivery of Jet A1 and LPG, at the expense of local transporters who have the capacity to do so. The Committee, therefore, urges the Government to devise deliberate measures to ensure the participation of local transporters by reserving at least 30 per cent of the transportation of Jet A1 and LPG for them.

8.9.1.20 Enhance Regulation on the Supply of Bitumen

The Committee observes that there has been poor regulation in the supply of bitumen in the country. In line with the *Energy Regulation Act, No. 12 of 2019*, all suppliers of bitumen are supposed to be registered with the ERB. However, some unregistered companies are allowed to supply the product to road contractors and other consumers. In this regard, the Committee recommends that the Government should ensure that the ERB enhances its regulatory function so that only registered companies supply bitumen on the market.

8.9.2 Upstream Petroleum Sub Sector

8.9.2.1 Incomplete Strategic Environmental Assessment

The Committee observes that the Ministry of Mines and Minerals Development has continued to issue petroleum exploration licenses without fulfilling the requirement of conducting Strategic Environmental Assessments (SEAs) as prescribed under the *Environment Management Agency Act, No 12, of 2011*. The Committee notes that the SEA is an important undertaking as it promoted sustainable petroleum exploration and production practices regarding environmental and social aspects among the various players in the upstream petroleum sub sector.

In light of the above challenge, the Committee urges the Government to provide financial and technical support to the Ministry of Mines and Minerals Development to enable it update and complete all the SEAs.

8.9.2.2 Failure to Inspect Petroleum Exploration Blocks

The Committee observes with concern that due to lack of resources, the Ministry of Mines and Minerals Development does not conduct inspections to verify the activities being undertaken in the petroleum exploration blocks that have been granted licenses. This has led to a situation where the Ministry is unable to physically monitor and regulate petroleum exploration activities in the country.

The Committee, therefore, recommends that the Government should ensure that the Geological Survey Department and the Hydrocarbons Unit in the Ministry are capacitated with the necessary resources to ensure that they conduct inspections in all the petroleum exploration blocks.

8.9.2.3 Need to formulate a Policy for the Upstream Petroleum Sub Sector

The Committee observes that while the 2019 Energy Policy has adequately provided for the needs of the downstream petroleum subsector, it has not adequately addressed the challenges faced in the upstream petroleum subsector. In addition, the Mineral Resources Development Policy of 2013, which is under the Ministry of Mines and Minerals Development, does not include any aspects of the upstream sub sector.

The Committee urges the Government to develop a policy specifically dedicated to the upstream petroleum sub sector as a matter of urgency in order to, among other things, address the challenges that beset the sub sector and attract more investment. The Committee further recommends that the policy should be placed under the mandate of the Ministry of Mines and Minerals Development under whose remit issues of exploration and production reside.

8.9.2.4 Harmonisation of the Petroleum (Exploration and Production) Act, No. 10 of 2008 and Mines and Minerals Development Act, No. 11 of 2015.

The Committee observes that the *Petroleum (Exploration and Production) Act, No. 10 of 2008* does not provide for the services of the Geological Survey Department and its Director as the provider of basic geological data. This information is, however, found in the *Mines and Minerals Development Act, No. 11 of 2015*. For the avoidance of doubt and since the *Petroleum Act* is the overarching piece of legislation guiding the upstream sub sector, it is important that this information is also reflected in the Act.

The Committee recommends that the Government should harmonise the two pieces of legislation in such a manner as to ensure that the provisions on the role of the Geological Survey Department, including its Director which are contained in the *Mines and Minerals Development Act, No. 11 of 2015* are equally applicable to the *Petroleum (Exploration and Production) Act, No. 10 of 2008*.

8.9.2.5 Need to Create the National Petroleum Company

The Committee observes that the *Petroleum (Exploration and Production) Act, No. 10 of 2008* and the Petroleum (Exploration and Production) (National Petroleum Company) Regulations of 2011, provides for the formation of the

National Petroleum Company. However, this provision has not been actualised. A national petroleum company could serve as an important statutory institution to support the development and regulation of the upstream petroleum sub sector for the country.

In the light of above, the Committee urges the Government to abide by the provisions of the law and ensure that the National Petroleum Company is created.

8.9.2.6 Specialised Geological Personnel

The Committee observes that the upstream petroleum sub sector lacks specialised human resource that are specifically trained in geology and related areas to effectively manage the affairs of the sub sector.

In this light, the Committee recommends that the Government should put in place deliberate measures to encourage specialisation in geology and related studies in order to develop the relevant skills and build the capacity of the Geological Survey Department in the Ministry of Mines and Minerals Development. This will ensure that the country has a well qualified cadre of personnel in the upstream petroleum sub sector. The Committee further recommends that the Government should support higher learning institutions so they can provide geological related academic programmes.

8.9.2.7 Absence of Geological and Geophysical Data

The Committee observes that the country does not have well packaged geological and geophysical data for the upstream sub sector. This has made it very difficult to assess the petroleum potential of the country and investors have no reference data to use when commencing projects.

In this regard, the Committee recommends that the Government should provide the necessary resources to the Ministry of Mines and Minerals Development to enable it create a repository for all geological and geophysical data, including historic geo-information for all areas that have been explored and yet to be discovered.

8.9.2.8 Relax Procedures for Exploration License Renewal

The Committee observes that the procedure for renewal of exploration licenses is tedious and license holders who complied with all the benchmarks during the previous license period are subjected to the same lengthy procedure in the subsequent license period. This has the potential to discourage investors. The Committee, therefore, urges the Government to revise the law by relaxing renewal procedures or develop mechanisms for automatic renewal for applicants who do not have any license breaches in the previous license period.

PART II

9.0 Consideration of the Action Taken Report on the Report of the Committee on Energy, Water Development and Tourism for the Third Session of the Twelfth National Assembly

Review of the Rural Electrification Programme in Zambia

9.1 Policy and Regulatory Framework

The Committee recommended that the Government should expedite the review of the 2008 National Energy Policy to address emerging issues in the energy sector, such as renewable energy technologies.

Executive's Response

The Executive responded that the Ministry of Energy, with assistance from the European Union, supported the Increased Access to Electricity and Renewable Energy Production (IAEREP) Project. The Ministry began the process of reviewing the 2008 National Energy Policy (NEP) and developing the Renewable Energy Strategy as well as a National Energy Efficiency Strategy.

The Committee was informed that the review of the National Energy Policy began with preliminary reviews, conducted between April and June, 2018, on the 2008 Energy Policy framework in the sector, aimed at identifying gaps, barriers, weaknesses and shortfalls in the existing policy. The policy preliminary review set out to justify the need for review and update of existing policy. The revised National Energy Policy would be based on the identified gaps and proposed measures in order to take into account the changes in the Seventh National Development Plan. The exercise was expected to undergo a comprehensive consultative process during the year 2019.

Committee's Observations and Recommendations

The Committee notes the response and awaits the launch of the 2019 National Energy Policy.

9.2 Cost of Service Study

The Committee recommended that the Government should expedite the process of conducting the electricity Cost of Service Study as a matter of urgency.

Executive's Response

The Executive responded that in April, 2017, the Government, through the Energy Regulation Board (ERB) launched the electricity Cost of Service

Study (CoSS). However, the study was suspended in July, 2018 following the withdrawal of the Consultant, the Economic Consulting Associates (ECA). The ERB, with an assurance of continued funding for the study from the African Development Bank (AfDB), commenced the process to engage a new Consultant to undertake the study.

The ERB issued a request for proposals to six shortlisted firms for undertaking of the study. Of the six firms, two had their bids rejected. The technical and financial evaluations of the bids was successfully completed and the African Development Bank (AfDB), being the financier, granted a “no objection” to the evaluation report in July, 2019. Commencement of works by the best evaluated bidder was expected to commence upon approval of the contract by the Office of the Attorney General.

Committee’s Observations and Recommendations

The Committee notes the response and urges the Government to expedite the completion of the Cost of Service Study as it is a key determinant for setting electricity tariffs. The Committee further requests an update on the timeframe attached to the completion of the Cost of Service Study.

9.3 Management and Operations of the Rural Electrification Fund

The Committee recommended that the *Rural Electrification Act, No. 20 of 2003* should be reviewed in order to bring it in tandem with the provisions of the *Public Finance Management Act, No. 1 of 2018* and any other existing policy guidelines.

Further, the Committee recommended that the Government should review the operations of the Rural Electrification Fund to ensure that they responded to the reason for which it was created.

Executive’s Response

The Executive responded that the Government had noted the Committee’s recommendation on the revision of the *Rural Electrification Act, No. 20 of 2003*. Further, the Executive informed the Committee that Cabinet had approved in principle the repeal of the *Rural Electrification Act* through the introduction of a Bill in Parliament. A draft bill to repeal and replace the *Rural Electrification Act* had been prepared and submitted to the Ministry of Justice for consideration.

The Committee was further informed that even though it was a requirement under section 25 of the *Public Finance Management Act* that funding to the Rural Electrification Fund had to be channelled through the Single Treasury Account, this did not pose any difficulty for the Rural Electrification Authority to manage the Fund. This was because the Single Treasury Account was simply a payment channel which was necessary for accounting

purposes. Government also agreed with the Committee that it was necessary to constantly review the operations of the Rural Electrification Fund to ensure that the objective of increasing the availability of electricity in rural areas and access to electricity by rural populations was progressively achieved.

Committee's Observations and Recommendations

The Committee requests an update on the actual measures taken to ensure that the Rural Electrification Fund is properly managed. The Committee further requests an update on the strategy meant to improve funding to the Rural Electrification Authority which will lead to the attainment of the targets set in the Rural Electrification Master Plan.

9.4 Electrifying Rural Areas by Grid Extension

The Committee recommended that the Government should channel more investments into the development of off grid and mini grid systems and develop regulatory mechanisms and create an enabling environment for research and development into off grid technology so as to attract and leverage resources from the private sector.

Executive's Response

The Executive responded that the Ministry of Energy, with support from the European Union and in collaboration with other stakeholders in the sector, had proposed a regulatory framework for off-grid systems in order to attract investment and to enhance local technical capacity. The proposed framework would be piloted through the Rural Electrification Authority before being rolled out on a full scale.

Committee's Observations and Recommendations

The Committee requests an update on the implementation of the regulatory framework for the off-grid system pilot project.

9.5 Over dependence on Funding from the Government

The Committee recommended that the Government should establish a transparent and sustainable financing model, which would allow for cross-financing of rural electrification programmes with the private sector.

9.6 Executive's Response

The Executive responded that the Government, through the Rural Electrification Authority, had embarked on the promotion of private sector participation through the Public Private Partnerships (PPPs) model in the implementation of rural electrification projects as part of the implementation of the 2019-2021 REA Strategic Plan.

Committee's Observations and Recommendations

The Committee notes the response and requests an update on the matter.

9.7 Poor Multi Sectoral Coordination

The Committee recommended that the Government should strengthen REA's regulatory role, and empower it to be the overall coordinator of all rural electrification activities. The Authority needed to be responsible for establishing partnerships and linkages among the various stakeholders implementing rural electrification projects so as to avoid duplication of efforts.

Executive's Response

The Executive responded that the Government was in the process of amending the *Rural Electrification Act, No. 20 of 2003* to, among other issues, explicitly provide for the regulatory oversight of the Rural Electrification Authority with respect to rural electrification activities in Zambia. The proposed amendments, once enacted, would empower the Rural Electrification Authority to coordinate and approve all rural electrification programmes by the private sector, NGOs, and other development partners.

Committee's Observations and Recommendations

The Committee requests an update on the review of the *Rural Electrification Act, No. 20 of 2003*.

9.8 Electrification of new Districts

The Committee recommended that the Government should develop a long term strategy, including a financing mechanism, to electrify new districts. The Committee further urged the Government to devise an implementable strategic plan for rural electrification in the new districts.

Executive's Response

The Executive responded that the Government, through the REA, had developed a medium-term planning tool called the Five-Year Rolling Plan (FYRP) which drew projects from the REMP and incorporated new developments in the country such as new districts, Government assurances, chiefs' palaces, among others. The FYRP would be updated annually in order to take into account changes in the environment. New districts were thus prioritised for electrification by REA in respective annual work plans, subject to availability of funds.

Committee's Observations and Recommendations

The Committee notes the response and requests an update on how many new districts have been electrified as a result of the Five-Year Rolling Plan.

9.9 Electricity Levy

The Committee recommended that the Government should review the *Electricity Act, Chapter 433 of the Laws of Zambia* to ensure that bulk energy consumers were also required to pay the 3 per cent electricity levy. This would enhance revenue to the energy sector and ultimately improve REA's financial standing.

Executive's Response

The Executive responded that the Government, through the Ministry of Energy, finalised the review process of the *Electricity Act*. The bill had since been submitted to the Ministry of Justice for final drafting, submission for consideration by the Internal Legislative Committee of Cabinet and subsequently presentation to Parliament.

Committee's Observations and Recommendations

The Committee notes that the *Electricity Act, No. 11 of 2019* does not contain any provisions on payment of 3 per cent electricity levy by bulk consumers. In this regard, the Committee urges the Government to take all necessary measures, including legislative measures, to compel bulk consumers to pay electricity levy.

9.10 Compensation for Transfer of Assets

The Committee recommended that the Government should come up with a deliberate policy and amend the law to ensure that REA was compensated by retaining some of the project assets, once the projects were completed. This would motivate the Authority in its work.

Executive's Response

The Executive responded that the Government was in the process to amend the *Rural Electrification Act No. 20 of 2003* to, among other issues, address the issue of project assets that REA handed over to Zesco Limited upon completion of projects.

Committee's Observations and Recommendations

The Committee notes the response and awaits the review of the *Rural Electrification Act, No. 20 of 2003*.

9.11 Completion of Luangeni Electrification Project

The Committee recommended that the Government should consider replicating the model used in Luangeni to electrify other rural parts of the country.

Executive's Response

The Executive responded that the Government, through the REA, had replicated the project in Chavuma and Mwense Districts and was committed to do so in other rural areas. Further, with support from the World Bank financed Electricity Service Access Project (ESAP) which aimed at connecting about 22,000 rural households in five years, Government had integrated the model.

Committee's Observations and Recommendations

The Committee notes the response and awaits a progress report on electrification of the remaining districts.

9.12 Failure to Launch New Projects

The Committee recommended that the Government should consider funding the Rural Electrification Authority according to the budget estimates enshrined in the Rural Electrification Master Plan, so that the Rural Electrification Programme was executed without further delay. The Committee further recommended that all the monies collected as Electricity Levy should be remitted to the REA.

Executive's Response

The Executive responded that the Government was committed to ensuring that the Rural Electrification Authority was fully funded according to its annual budget. Further, funds permitting, the Treasury would provide support to the Rural Electrification Authority to actualise the Rural Electrification Master Plan.

Committee's Observations and Recommendations

The Committee requests an update detailing the specific measures taken to improve funding to the Rural Electrification Authority.

9.13 Lack of Internal Wiring Services to Public Institutions

The Committee recommended that the Government should consider including the component of internal wiring to ensure that the process translated into actual electricity access for public institutions.

Executive's Response

The Executive responded that the Government would consider incorporating the cost of internal wiring for public institutions in the work contracts in order to ensure that access to electricity was actualised when a project was completed and the line was energised.

Committee's Observations and Recommendations

The Committee requests an update on the matter.

9.14 Inability by Public Institutions to Pay Connection Fees

The Committee recommended that the Government should consider subsidising the cost of electricity connections to public institutions in order to ensure that the process of electrifying rural areas was complete, and that electricity access was enhanced.

Executive's Response

The Executive responded that the Government through the REA and ZESCO Limited was considering formulating a connection subsidy programme for public institutions.

Committee's Observations and Recommendations

The Committee requests an update on the matter.

8.15 Failure to Complete Solar Home System Project in Lundazi

The Committee recommended that the Government should allocate financial resources to the Rural Electrification Authority to enable it complete the Solar Home System Project in Lundazi, and to fully electrify Semphe Primary School.

Executive's Response

The Executive responded that the Government would take appropriate action after conducting the status assessment of Lundazi and Semphe Primary School through the Rural Electrification Authority.

Committee's Observations and Recommendations

The Committee requests an update on the matter.

9.16 Widen Scope of the Rural Electrification Programme

The Committee recommended that the Government should consider increasing the scope of electrification beyond public institutions, to ensure that people who did not fall in the category of public institutions also benefited from the programme.

Executive's Response

The Executive responded that the Government, through the Rural Electrification Authority, had intensified its programme to connect rural households at a subsidised fee. This was part of the scope under the World Bank supported Electricity Service Access Project (ESAP) which aimed at scaling up the rural electrification programme in Northern, Luapula, Copperbelt, North-Western, Eastern, Southern, Muchinga, Central, and Western Provinces.

Committee's Observations and Recommendations

The Committee requests an update on progress made since the commencement of the intensification of the programme.

Management of National Parks and Game Management Areas in Zambia

9.17 Harmonisation of Legislation

The Committee recommended that the Government should strengthen the *Zambia Wildlife Authority Act, No. 14 of 2015* in order to make it more effective in regulating activities such as mining and logging, which had an adverse effect on protected areas such as pollution and loss of natural habitat for wildlife. Further, the Committee urged the Government to harmonise the *Forestry Act, No. 4 of 2015* and *Mines and Minerals Development Act, No. 11 of 2015* which impacted the wildlife sector and in turn created a more conducive environment for the various players.

Executive's Response

The Executive responded that the Ministry of Tourism and Arts was in the process of reviewing the *Zambia Wildlife Act, No. 14 of 2015* so as to realign it with the Decentralisation Policy as enshrined in the *Constitution of Zambia, Chapter 1 of the Laws of Zambia* as amended by Act No. 2 of 2016. The review of the Act was scheduled for 2019, subject to Cabinet approval. Thereafter, the Ministry would utilise the opportunity to strengthen the provisions relating to management of activities in the protected areas such as logging, mining and fisheries to mention a few. The review would include necessary provisions to strengthen matters of illegal settlement and loss of habitat in the protected areas.

The Committee was further informed that the *Wildlife Act, No. 14 of 2015* allowed human settlements in Game Management Areas and this was what influenced the carrying out of other development activities in line with the Game Management Plans, that supported human settlements and activities such as timber harvesting. However, forest concession license in a Game Management Area and logging of timber could only be granted with the consent of the Department of National Parks and Wildlife.

Further, section 52 subsection (1h) of the *Mines and Minerals Development Act, No. 11 of 2015* provided that “a holder of a mining right or mineral processing licence shall not exercise any rights upon any land comprised in a National Park, Community Partnership Park, Game Management Area or a bird sanctuary without complying with the *Zambia Wildlife Act of 2015*.” Therefore, the *Mines and Minerals Development Act, No. 11 of 2015* already required that mining rights holders complied with the *Zambia Wildlife Act*. Hence, any changes made to the *Wildlife Act*. Would still entail that mining right holders must comply with the changes made.

Committee's Observations and Recommendations

The Committee requests an update on the review of the *Wildlife Act, No. 14 of 2015*.

9.18 Human Resource and Poor Conditions of Service for Wildlife Police Officers

The Committee recommended that the Government should expedite the process of recruiting more wildlife police officers in order to meet the international standards as guided by the International Union for the Conservation of Nature. The Committee also recommended that the Government should harmonise the conditions of service for wildlife police officers to bring them in tandem with prevailing conditions for other law enforcement officers in the country.

Executive's Response

The Executive responded that the Government had a plan to employ 600 wildlife police officers each year for a period of three years. However, in 2018, only a total number of 275 wildlife police officers were employed due to limited fiscal space caused by austerity measures being implemented by Government. The Government would continue the employment exercise in order to ensure that the optimum number of officers was reached as planned.

Committee's Observations and Recommendations

The Committee requests an update on the matter.

9.19 General Management Plans

The Committee recommended that the Government should ensure that the necessary financial resources were channelled to the Department of National Parks and Wildlife to enable it formulate and update General Management Plans that were in tandem with new challenges in the wildlife sector. The Committee further recommended that the Government, through the Department of National Parks and Wildlife, should ensure that General Management Plans were implemented in all Game Management Areas. This would enable the Department of National Parks to control encroachments and illegal settlements in the Game Management Areas.

Executive's Response

The Executive responded that it was cognisant of the many challenges that the Department of National Parks and Wildlife was facing in managing wildlife protected areas particularly the control of encroachments and illegal settlements. The Committee was informed that the Government was

committed to ensuring that General Management Plans were formulated and implemented in all Game Management Areas. The Government agreed with the Committee that without General Management Plans in place, management decisions in protected areas would be made on an ad-hoc basis. This would result in a number of management crises such as unclear boundaries, encroachment, and ineffective implementation of management actions, and ineffective monitoring and evaluation of the actions. The lack of Management Plans had, over time, to a large extent negatively affected the integrity of the Protected Areas.

The Committee was further informed that the Government was aware that the budget allocation to the Department of Wildlife was not adequate to finance the preparation of General Management Plans due to the high costs involved in the planning process. In that regard, the Government had given a directive to channel financial resources towards the formulation General Management Plans for protected areas that were being managed without plans and to update expired General Management Plans. This would facilitate coordination of management challenges that the Department of National Parks and Wildlife was facing in addressing the problem of encroachment and illegal settlements by delineating protected area boundaries and monitoring developments taking place in these areas.

Further, the Executive responded that the Government was aware of the fact that the formulation and implementation of General Management Plans would ensure that management efforts would effectively contribute to the goals of wildlife conservation. Therefore, once General Management Plans were in place, they would assist in coordinating the developments taking place in protected area towards a set of agreed and shared objectives. The primary designation of wildlife-protected areas was conservation and the success of conservation could only be achieved by ensuring that those areas were managed in a coordinated manner through formulation and implementation of General Management Plans. However, successful implementation of these plans would not be complete without monitoring and evaluation and modalities being in place, involving continuous or periodic review to assess delivery, identify difficulties, to ascertain problem areas, and to recommend remedial actions. It was part of the implementation processes, which involved field visits to assess adherence of developments taking place in protected areas to the provisions of General Management plans.

Committee's Observations and Recommendations

The Committee notes the response and requests an update on the formulation of Game Management Plans for those protected areas without such Plans. The Committee further requests an update on the specific measures taken to ensure that the Plans are implemented in all Game Management Areas.

The Committee further requests an update on the actual modalities that have been put in place to enhance field visits to assess adherence of developments taking place in protected areas to the provisions of General Management plans.

9.20 Encroachments

The Committee recommended that the Government should carry out a nationwide audit to verify all the boundaries for National Parks and Game Management Areas. The Committee further urged the Government to ensure that it secured all protected areas by clearly demarcating the boundaries and to strengthen the law to prevent encroachments by illegal settlements and other activities such as mining, logging and deforestation.

The Committee also recommended that the Government should apply the law fairly and firmly in order to prevent illegal allocation of land in protected areas.

Executive's Response

The Executive responded that the Department of National Parks and Wildlife was in the process of mapping out areas which were encroached in protected areas. Using legal channels and sensitisation awareness campaigns to ensure encroached areas were being recovered and habitats reclaimed for wildlife.

Committee's Observations and Recommendations

The Committee notes the response and requests for specific details on which protected areas have been mapped out and reclaimed.

9.21 Relaxing Procedure for Participation in Game Ranching

The Committee had urged the Government to revise the *Zambia Wildlife Act, No. 14 of 2015* so as to allow communities in Game Management Areas to partner with private investors in game ranching activities.

Executive's Response

The Executive responded that the *Zambia Wildlife Act* provided for the establishment of private wildlife estates or game ranches in open areas. The procedure to establish private wildlife estates was simple, it only required one to send an application to the Director of the National Parks and Wildlife together with an Ecological Suitability Assessment Report prepared by a consultant for approval. For community game ranches, the DNPW had offered to conduct the assessments once funds were made available. The major hindrances in establishing community game ranches included those set out below.

- (a) The high cost of fencing. Game fences were needed to ensure the security of the animals.
- (b) The high cost of purchasing and translocation animals.

The Executive further responded that for communities living in the Game Management Areas, there was a problem as the *Wildlife Act* did not provide for establishment of private wildlife estates (Game Ranches) in Game Management Areas. Section 2 of the *Zambia Wildlife Act No 14 of 2015* defined a Private Wildlife Estate as “*an area outside a public wildlife estate that is reserved by a person or local community for wildlife conservation and management, and includes a game farm, game ranch, reptile farm, aviary, zoo and captive breeding facility.*” Section 2 further defined a public wildlife estate to include a game management area.

The Government recognised that such a provision was problematic and a hindrance to wildlife conservation and tourism development. There were some districts that were located in Game Management areas such as Chama, Sikongo, Kalabo, Mitete, Sikongo, Sioma, parts of Nalolo and Sesheke, Rufunsa, and Luangwa District which were equally affected. The Government, through the Ministry of Tourism and Arts, had been promoting community game ranching in response to the Presidential Directive and as part of the tourism development strategies in the Seventh National Development Plan. However, there were challenges to effectively process applications for game ranches from such areas in GMAs because of the above clause in the *Wildlife Act*. In that regard, the Government proposed an amendment to the Act so as to allow for game ranching in parts of Game Management Areas that were zoned for development or settlements in accordance with the general management plan for that area.

Committee’s Observations and Recommendations

The Committee notes the response and urges the Government to expedite the review of the *Wildlife Act, No 14 of 2015* in order to allow for the establishment of private ranches in Game Management Areas.

9.22 Review of Licence Fees

The Committee recommended that the Government should, as a matter of urgency, review the fees for licenses and permits for various services in the wildlife sector in order to raise revenue for the wildlife sector.

Executive’s Response

The Executive responded that pursuant to the *Zambia Wildlife Act, No. 12 of 2008* and Statutory Instrument No. 60 of 2007 on licences and fees regulations in respect of all fees applicable to various products and services

which were provided in the National Parks and Game Management areas in Zambia, the Government through the Department of National Parks and Wildlife acknowledged and agreed with the Committee's observation on the matter based on the following underlying reasons:

- (a) The fees were set in 2007 and had not been reviewed despite the depreciation of the Kwacha against the United States Dollars over the past twelve years;
- (b) The fees and prices charged for the services and products were among the lowest in the region and did not reflect the real value for money for the said products and services;
- (c) There were new products and services which were in the wildlife sector which were not on offer at the time the *Zambia Wildlife Act, No 12 of 1998* was enacted alongside the subsidiary regulations in terms of the Statutory Instrument No. 60 of 2007 on Licences and Fees.

In view of the above, the Government firmly believed that there was need to introduce and revise prices/fees on various products and services in order for the Zambian Government to get a fair share of and benefit from its tourism products, activities and services accordingly. For this reason, the Government was in the process of revising the Statutory Instrument No. 60 of 2007 taking into consideration the guidance provided by the Business Review Regulatory Agency (BRRA). The Government was fully aware that the *Business Regulatory Act, No. 3 of 2014* provided that review of fees by regulatory institutions needed to be preceded by a Regulatory Impact Assessment (RIA) on those which affected the cost of doing business.

Furthermore, the Government, through the Department of National Parks and Wildlife, had engaged the BRRA and was preparing for a training workshop on how to conduct the RIA, this would be followed by preliminary meetings in four main DNPW catchment regions. The findings from the meetings would be used as a basis to review the prevailing Statutory Instrument on licenses and fees for various permits, certificates and licenses.

Committee's Observations and Recommendations

The Committee requests a progress report on the review of Statutory Instrument No. 60 of 2007 on licenses and fees.

9.23 Untimely Disbursements to Community Resource Boards

The Committee recommended that the Government should ensure that Community Resource Boards were funded in time to enable them pay salaries for community scouts in time and implement other development projects in their respective communities. Further, the Committee urged the Government to explore other sources of funding besides the Treasury.

Executive's Response

The Executive responded that the Department of National Parks and Wildlife had made a proposal to the Treasury to the effect that 50 per cent community and chiefs' share from the safari operators should be disbursed directly to CRB's account at source and not remitted to control 99 (Government central treasury) as this had proved to be a major challenge in delaying the disbursement process to local communities and chiefs' shares.

Committee's Observations and Recommendations

The Committee notes the response and requests a progress report on the matter.

9.24 Lack of Infrastructure

The Committee recommended that the Government should urgently carry out rehabilitation works on all the roads and bridges leading to National Parks and Game Management Areas. This would enhance and attract private sector investment and domestic tourism.

Executive's Response

The Executive responded that the Government acknowledged the economic importance of the roads leading to National Parks. In that regard, rehabilitation works of major access, tourist and loop roads in National Parks had been done and notably, among others, included:

- (a) 9 kilometre River Side Drive in Mosi-Oa-Tunya National Park – major Tourist road
- (b) Hook Bridge – Lufupa – Busanga Plains Road in Kafue National Park
- (c) Mfuwe – Chichele and other lodges in South Luangwa National Park
- (d) Valley Road in Lower Zambezi National Park

Other rehabilitation works of major crossing points such as bridges, culverts and drifts included the following:

- (a) Chongwe River crossing from Chiawa GMA to Lower Zambezi National Park
- (b) Mupamadzi, Kapamba, Mutisase, Kaumba River Crossings in South Luangwa National Park
- (c) Luangwa River Crossings via Nabwalya in Luambe National Park

Further, the Government, through the Road Development Agency (RDA), would endeavour to ensure that all such roads were rehabilitated and well maintained. In the same vein, the Government had already commenced rehabilitation maintenance works on some of the roads leading to National

Parks such as the Kalomo-Dundumwezi Road which led to the Dundumwezi National Park. The works on the roads were awarded to Messrs China State Construction Engineering Group at a contract sum of K187,866,440.40 with commencement date of 23rd August, 2017 and was expected to be completed by 23rd August, 2022. Other roads leading to other National Parks would also be considered for rehabilitation subject to availability of funds.

Committee's Observations and Recommendations

The Committee notes the response and requests a progress report on the rehabilitation of infrastructure, including roads and bridges in the other protected areas.

9.25 Avert High Levels of Poaching and Wildlife Trafficking in Protected Areas

The Committee recommended that the Government should review the *Zambia Wildlife Act, No. 14 of 2015* in order to stiffen the penalties for poaching and illegal wildlife trafficking. Further, the Committee urged the Government to adequately fund the Department of National Parks and Wildlife to enable it implement anti-poaching and wildlife trafficking enforcement programmes in all protected areas.

Executive's Response

The Department of National Parks and Wildlife was in the process of reviewing the *Zambia Wildlife Act No. 14 of 2015*, the principal legislation relating to wildlife in Zambia. Once reviewed, the Act would be able to address the following key areas:

(a) Zambia Wildlife Act No.14 of 2015 Trafficking Offences

It was observed that illegal wildlife trade was becoming a global trend spreading across borders. In its current form the *Zambia Wildlife Act, No. 14 of 2015* did not provide punitive clauses to deal with offences related to trafficking. For instance if a suspect was apprehended, the current practice was to treat a suspect involved in trafficking offences they were charged with the offence of possession of the contraband. This distorted information on trafficking because the trafficking aspect was not captured. Hence the need to amend the *Wildlife Act, No. 14 of 2015* to, among other issues, deal with the trafficking offences.

Committee's Observations and Recommendations

The Committee requests an update on the matter.

(b) Subsidiary Legislation

Further, the Department of National Parks and Wildlife had embarked on an assignment to review existing and enact subsidiary legislation to support the

enforcement of the *Zambia Wildlife Act No.14 of 2015*, among the Statutory Instruments identified to be in urgent need of review included the following:

- (a) Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). The Department was in the process of reviewing the CITES regulations to realign the current regulation to confirm with prevailing international norms and practices
- (b) Zambia Wildlife (Park Regulations) - The Department had embarked on an exercise to draft regulations regarding the conduct of tourists while visiting national parks
- (c) Zambia Wildlife (Sealing of Firearms in Public Wildlife Estates) Regulations
- (d) Zambia Wildlife (Prescribed Trophy) Regulations

Further, the Department of National Parks and Wildlife commended the committee's recommendation urging the Government to ensure that the necessary financial resources were channelled to the Department of National Parks and Wildlife to enable it implement anti-poaching and wildlife trafficking enforcement programmes in all protected areas.

Committee's Observations and Recommendations

The Committee requests an update on the finalisation of subsidiary legislation to the *Wildlife Act No.14 of 2015* that will enhance enforcement of anti-poaching and wildlife trafficking activities.

9.26 Lack of Sustainable Land Use in Game Management Areas

The Committee recommended that the Government should intensify awareness campaigns and education provision to all villagers in and around Game Management Areas so as to build their capacity to enable them make informed decisions in sustainable land use in protected areas.

Executive's Response

The Government responded that the Government facilitated awareness programmes in villages to sensitise the communities on the Sustainable Land Use in conformity with the mutually agreed upon zones embedded in the General Management Plan (GMPs). However, the Department of National Parks and Wildlife faced challenges because the Zones were not clearly marked to completely avoid encroachment. Further, the department, through the CBNRM unit and cooperating partners, had embarked on creating Integrated Land Use Plans (ILUPs) at Village Action Group (VAG) level in North Western and Central Provinces of Zambia. This was to ensure prudent and sustainable management of land and other natural resources by local communities.

Committee's Observations and Recommendations

The Committee requests an update on the implementation of the Integrated Land Use Plans in the remaining eight provinces.

9.27 Raise Visibility of South Luangwa National Park

The Committee recommended that the Government should devise a robust marketing strategy to attract both local and foreign tourists to the South Luangwa National Park which was endowed with abundant world-class, nature-based assets such as rivers, wetlands, bird species and wildlife, among many other ecological resources found in the protected area.

Executive's Response

The Government responded that the Department of National Parks and Wildlife and the Zambia Tourism Agency were working on measures to ensure that the South Luangwa National Park reached international prominence by having the park declared as the first ever sustainably managed park by the United Nations World Tourism Organisation, (UNWTO). The UNWTO Secretary General had undertaken a high-level visitation to the park increasing the park's visibility.

Committee's Observations and Recommendations

The Committee notes the response and requests an update on the specific measures being undertaken to raise the visibility of South Luangwa National Park.

9.28 Unaffordable Accommodation Facilities in Protected Areas

The Committee recommended that the Government should promote low cost accommodation affordable to local tourists. This would enhance citizens' exposure to wildlife in National Parks and Game Management Areas, and ultimately generate revenue for the sector.

Executive's Response

The Executive noted the concerns raised by the Committee on unaffordable facilities in protected areas and the need to promote low cost accommodation for local tourists. In an attempt to address this challenge, the Department of National Parks and Wildlife (under the then ZAWA) embarked on an exercise to construct camping facilities in some of the most visited national parks in order to encourage and promote low cost accommodation for domestic tourists. Further, there were DNPW operated guest houses in some national parks with a deliberate low pricing model put in place to promote and take care of low budget domestic tourists. In as much as DNPW was willing to promote local tourism, the Department was

constrained with financial resources to continue and complete the camp sites projects which were started under ZAWA. It was a challenge to properly maintain the institutional guest houses when there were no finances to support such.

The Committee was informed that DNPW would continue to engage tour operators to come up with promotional packages in order to encourage low cost accommodation for local tourists. Additionally, the Government, through the DNPW, had done a commendable job by putting in place discounted park entry fees for locals in the Statutory Instrument to promote domestic tourism. The institution had gone a step further by offering specific bed night charges in Tourism Concession Agreements for local tourists which were way below the rates for foreign tourists with the view of lowering accommodation costs.

Committee's Observations and Recommendations

The Committee requests an update on the completion of the construction of camping facilities meant for local tourists.

9.29 Need to Train Community Village Scouts

The Committee observed that about 50 per cent of community village scouts employed in the Lupande Game Management Area were not trained. Further, the Committee noted that the untrained scouts were allowed to use firearms, which posed a danger to the scouts and members of the community.

The Committee recommended that the Government should ensure that Community Resource Boards (CRBs) received their share of revenue from hunting activities in good time to enable them train community village scouts and implement other developmental community programmes.

Executive's Response

The Executive responded that the Government, through the Department of National Parks and Wildlife, supported the committee's recommendation and was committed to ensuring timely disbursement of community funds to enable the CRBs implement their planned programmes.

Committee's Observations and Recommendations

The Committee notes the response and requests an update on how many community scouts were trained in 2019.

9.30 Improve Living Conditions in the Department of National Parks and Wildlife Camps

The Committee recommended that the Government should ensure that basic services and facilities such as shelter, education, health, water and

sanitation were provided in all the camps. Once these facilities were provided, wildlife police officers would be motivated to work in the camps.

Executive's Response

The Executive responded that the Government had formulated a housing development plan through the Infrastructure and Development Unit to build modern medium and low cost housing units in the camps in order to curb housing problems. Further, efforts were underway to rehabilitate all the dilapidated housing units in the camps. These efforts were however being hampered by the lack of funds caused by budgetary constraints.

Committee's Observations and Recommendations

The Committee requests a progress report on the housing development plan and the rehabilitation of dilapidated housing units in the camps.

9.31 Need to Benefit from Non-Consumptive Tourism

The Committee recommended that the Government should review the *Wildlife Act No. 14 of 2015* to enable communities benefit from the revenue flow from non-consumptive tourism.

Executive's Response

The Executive responded that the Government agreed with the Committee that the Act should be reviewed to provide for mechanisms how on local communities could benefit from non-consumptive tourism activities, which took place in Game Management Areas (GMAs), and not National Parks. This would enhance community participation in resource protection efforts in their respective GMAs.

The Committee was informed that the Department of National Parks and Wildlife collected revenue from two tourism activities, namely non-consumptive (photographic) in National Parks and consumptive tourism (hunting) activities in Game Management Areas in line with the *Zambia Wildlife Act, No. 14 of 2015*. Revenue generated from non-consumptive activities in National Parks was Government revenue as the land belonged to the State, while revenue from consumptive activities undertaken in GMAs was shared with the communities because the ownership of land was customary administered by traditional leaders in consultation with DNPW. However, DNPW had observed that there had been an increase in the number of tour operators conducting non-consumptive activities in GMAs and agreed with the Committee that communities were not directly benefiting from the revenue flows from the non-hunting activities being undertaken.

That being the case, DNPW agreed that the Wildlife Act needed to be reviewed by putting in place measures to compel all investors and land

users in GMAs to pay land user fees and other fees related to revenues being generated. Further, ensuring that the use of land for any developments benefited the local communities ensuring they got a fair share unlike the current situation where only traditional leaders were the ones benefiting through land sales. The Department was in the process of reviewing the *Zambia Wildlife Act, No. 14 of 2015* and thus would consider binding non-consumptive tour operators to Tourism Concession Agreements with Communities and DNPW in all GMAs in line with the existing tripartite hunting concession agreements.

Committee's Observations and Recommendations

The Committee notes the response and awaits an update on the review of the *Wildlife Act, No. 14 of 2015*.

9.32 Human-Wildlife Conflict

The Committee recommended that the Government should develop guidelines on how to deal with the problem of human-animal conflict. The Committee further recommended that the Government should ensure that all stakeholders actualised and adhered to the prescribed rules outlined in General Management Plans of respective Game Management Areas.

Executive's Response

The Executive responded that the Government through the Department of National Parks and Wildlife conducted sensitisation and awareness campaigns in areas prone to Human Animal Conflict. Through the General Management Plans, the Department had embarked on micro zoning game management areas ensuring that active wildlife corridors were mapped out and this had in turn helped communities to plan on where to cultivate and settle. The Department had also, through cooperating partners, provided boreholes in areas where conflict had been caused because of access to water.

Committee's Observations and Recommendations

The Committee notes the response and requests for details of which Game Management Areas have been mapped-out.

9.33 Need to Employ Local People

The Committee recommended that the Government should take into consideration local people who possess the necessary qualifications whenever there were vacancies in the Department of National Parks and Wildlife.

Executive's Response

The Committee was informed that during the 2018 recruitment exercise, village scouts were recruited from amongst the local people. Going forward, the Ministry had decided that during recruitment exercises, screening of the applicants would be done from the regions and then submitted to the Ministry.

Committee's Observations and Recommendations

The Committee notes the response and requests an update on how many village scouts have been employed under the new recruitment policy.

9.34 Lack of Patrol Vehicles, Firearms, Uniforms, Protective Gear and Equipment

The Committee recommended that the Government should urgently procure patrol vehicles, camping gear, firearms and uniforms to enable the Department of National Parks and Wildlife carry out law enforcement operations.

Executive's Response

The Executive responded that in 2018, the Department of National Parks and Wildlife undertook to procure twenty five patrol vehicles, uniforms, firearms and other equipment to alleviate some of the challenges faced by field staff. Further, 500 semi-automatic rifles were issued to the Department by the Zambia Army.

Committee's Observations and Recommendations

The Committee notes the response and requests an update on the procurement of patrol vehicles, camping gear, firearms and uniforms.

10.0 Consideration of the Action Taken Report on the Report of Committee on Energy, Water Development and Tourism for the Second Session of the Twelfth National Assembly

Water Supply and Sanitation in Zambia

10.1 Need to review the National Water Policy

The Committee recommended that in order to give the water supply and sanitation sector a clear direction, there was urgent need to develop a comprehensive water supply and sanitation policy which would address the many problems that the sector faced.

Executive's Response

The Executive responded that the draft National Water Supply, Sanitation and Solid Waste Management Policy was finalised and submitted to Cabinet Office. However, the Ministry of Local Government had requested to have a standalone Solid Waste Management Policy and Cabinet Office gave approval to have two separate policies. Therefore, the Ministry of Water Development, Sanitation and Environmental Protection resubmitted the draft Water Supply and Sanitation Policy and its implementation plan to Cabinet Office to be reviewed before it could be tabled before Cabinet for consideration.

Committee's Observations and Recommendations

The Committee requests an update on the matter.

10.2 Need to enhance Corporate Governance

The Committee recommended that the Government should put in place measures to enhance good corporate governance and ensure that Boards of Directors were appointed in all commercial utilities. The appointment of Directors to the Boards needed to meet the qualifications enshrined in the *Companies Act* and respective Articles of Association for commercial utilities. The Committee further recommended that the Government should ensure that no Chief Executive Officer was subjected to working without a contract.

Executive's Response

The Board of Directors for all the eleven commercial utility companies were appointed during the fourth quarter of 2018.

Committee's Observations and Recommendations

The Committee notes the response on the appointment of Board of Directors and requests for a progress report on the status of employment of Chief Executive Officers for all the eleven commercial utility companies.

10.3 Inadequate Water and Sanitation Investment

The Committee recommended that Government needed to increase financial support to enable commercial utilities to expand water and sanitation coverage to urban and peri urban areas. The Committee further recommended that the Government should consider entering into public-private partnerships (PPPs) in order to leverage additional investment into the sector.

Executive's Response

The Executive responded that the Government was considering facilitating partnerships between water utility companies and local engineers to manufacture and install water metres in order to reduce the cost of providing water and sanitation services to the people.

Furthermore, the Government intended to facilitate partnerships between manufacturers and water utility companies in setting up plants to manufacture chlorine which was a major component in the production of clean and safe water in order to reduce the cost of providing water to rural and urban areas.

Committee's Observations and Recommendations

The Committee requests an update on the matter.

10.4 Outstanding Water and Sanitation Bills

The Committee recommended that the Government should settle all outstanding arrears that it owed water utility companies. The Committee further recommended that the Government should consider debt swapping against the statutory dues that commercial utilities owed institutions such as ZESCO Limited, Zambia Revenue Authority (ZRA) and National Pension Scheme Authority.

The Committee further recommended that in order prevent the accumulation of bills by Government departments and institutions, commercial utilities should consider installing prepaid metres in all Government departments and institutions.

Executive's Response

The Ministry of Finance, through the Controller of Internal Audits, conducted an audit of all debt owed to the water utility companies by Government institutions and verification of the statutory obligations owed by the commercial utilities. The exercise was yet to be concluded.

The installation of prepaid metres at all government institutions and domestic consumers was ongoing and to be completed depending on availability of funds.

Committee's Observations and Recommendations

The Committee requests an update on the matter.

10.5 Non-Revenue Water (NRW)

The Committee recommended that the Government should channel the necessary financial support towards rehabilitation and upgrade of water and sanitation infrastructure in order to curb the problem of non-revenue water and consequently improve the efficiency of commercial utilities.

Executive's Response

The Executive responded that strategies being employed to reduce NRW included the following:

- (a) investment in the rehabilitation and construction of water sewerage infrastructure;
- (b) establishment of the NRW National Technical Task Force to find a lasting solution to NRW;
- (c) peer to peer studies on good practices on NRW reduction within the region;
- (d) universal metering; and
- (e) metering of all water production sources by commercial water utilities.

Committee's Observations and Recommendations

The Committee requests an update on the matter.

10.6 Uncoordinated and weak collaboration

The Committee recommended that in order to foster a well-coordinated and integrated system, there was need to undertake a comprehensive review of the *Water Supply and Sanitation Act, No. 28 of 1997* and finalise the development of the water supply and sanitation policy.

Executive's Response

In response, the Executive stated that the Government had finalised the layman's draft of the Water Supply and Sanitation Bill and it was expected to be presented to the Ministry of Justice before Cabinet approval.

Committee's Observations and Recommendations

The Committee requests an update on the matter.

10.7 Improve Water and Sanitation Infrastructure

The Committee recommended that the Government should finance the rehabilitation of water supply and sanitation infrastructure. The Committee further recommended that Government should explore avenues for alternative reliable sources of funding for the water and sanitation sector in order to have a continuous flow of funds to the sector. The Government was urged to create a basket fund for the sector.

Executive's Response

The Executive responded that the Ministry of Water Development, Sanitation and Environmental Protection was undertaking the following measures to improve water and sanitation infrastructure:

- (a) carry out of feasibility studies in order to develop bankable investment requirements;
- (b) engage international financial institutions such as the African Development Bank (AfDB), World Bank, KfW, among others, to finance water and sanitation infrastructure; and
- (c) identify projects to be funded through Public Private Partnerships (PPPs).

Committee's Observations and Recommendations

The Committee requests a progress report on the implementation of the reported measures, illustrating exactly how the measures had contributed to the mobilisation of sustainable financing for the improvement of the state of water and sanitation infrastructure.

10.8 Widespread Encroachments of Water and Sewerage Plants

The Committee recommended that in order to protect the facilities and stop any further encroachments on water and sanitation plants, there was need to expedite the process of securing title deeds for all properties owned by commercial utilities.

Executive's Response

The process of acquiring titles particularly for those installations which were omitted on the Statutory Instruments that transferred the assets to the commercial utility companies was ongoing. However, the National Water Supply and Sanitation Council (NWASCO) had implored the commercial utility companies to secure their installations by fencing them off as the process of acquiring titles was ongoing.

Committee's Observations and Recommendations

The Committee requests a progress report on the matter.

10.9 Rural Water Supply and Sanitation

The Committee recommended that the Government should expedite the process of approving the National Rural Water Supply and Sanitation Programme for the period 2016 to 2030 in order to increase access to safe, reliable water and proper sanitation.

Executive's Response

The Executive responded that the following strategies were being employed to improve rural water supply and sanitation in the country:

- (a) implementation of capacity building programmes of implementing entities such as local authorities and water utility companies;
- (b) strengthening of research and development in rural water supply and sanitation;
- (c) implementation of regulatory frameworks for rural water supply and sanitation which involved changing the licenses of all commercial utilities to cover both rural and urban areas.
- (d) formation of multi stakeholder Joint Implementation Teams (JITs) to re-organise rural water supply and sanitation in order to pave way for effective water supply and sanitation and regulation. The JIT would comprise local authorities, among others, who were currently providing water supply in rural areas;
- (e) the National Rural Water Supply and Sanitation Programme (NRWSSP) phase II continued to ride on the community based participatory approach to sustainable operation and maintenance of WASH infrastructure through capacity building at all levels and strengthening of the supply chain;
- (f) implementation of sanitation and hygiene programmes such as the Community Led Total Sanitation (CLTS); and
- (g) increased use of piped water schemes as opposed to point sources such as boreholes and protected dug wells in the NRWSSP II.

Committee's Observations and Recommendations

The Committee notes the response and requests an update on the tangible outcomes recorded out of implementation of the above outlined strategies so far.

Review of the Operations of the Zambezi River Authority

10.10 Tour of the Batoka Gorge Hydro-Electric Scheme and the Kariba Dam Rehabilitation Project

The Committee recommended that the Government should ensure that there were no delays to complete the Batoka Gorge Hydro-Electric Scheme (BGHES). The completion of the project would ensure more stable and reliable power supply for the country and improve the competitiveness of the country's electricity products but also provide scope for new energy intensive investments.

Executive's Response

The Executive responded as set out below.

Status of the BGHES Preparatory Studies and developer

The draft reports for the preparatory studies for the development of the BGHES had been completed by the consultant. The draft reports comprised two components as listed below.

- (a) Engineering Feasibility Studies; and
- (b) Environmental and Social Impact Assessment (ESIA) Studies and associated Environmental and Social Management Plan (ESMP).

The final reports were expected to be received by the end of August, 2019 and September, 2019, respectively.

With regard to the procurement of the BGHES developer, the consortium of Power Construction Corporation of China Limited and General Electric were appointed to develop the BGHES on a Build, Operate and Transfer basis. The negotiations with the developer had commenced, and the concession agreement was expected to be signed by December, 2019.

Update on the Kariba Dam Rehabilitation Project (KDRP) Implementation

The KDRP involved two components, namely the plunge pool reshaping and spillway refurbishment. The progress of works was as indicated below.

(a) Plunge Pool Reshaping Works

The contractor, Rasel Bec of France, engaged to undertake the works had completed the access road to the plunge pool area and was working on the foundations of the coffer dam. The coffer dam was required to dewater the plunge pool for works to be undertaken in the dry. The coffer dam

construction was scheduled to be completed in May, 2020 with the whole project being completed in September, 2021.

(b) Spillway Refurbishment Works

The spillway refurbishment contract was signed on 24 May, 2019, with a consortium of GE Hydro France and Freyssinet International. The project would be implemented over a four-year period, starting with the first year for the manufacture and transportation to site of the hydro-electro-mechanical equipment that would be installed in the dam as part of the refurbishment works. The remaining three years would be used to refurbish the stop-logs guide slots at a pace of two per year, giving duration of three years for the six sluices. Commissioning of the project was, therefore, targeted to take place by the end of year 2023.

Committee's Observations and Recommendations

The Committee requests a progress report on the completion of the Batoka Gorge Hydro-Electric Scheme and the Kariba Dam Rehabilitation Project.

10.11 Employment equity between the contracting states and the Office of Chief Executive

The Committee recommended that there was need to ensure that the 50-50 employment basis was attained without undue delay. In addition, the agreement that a national of the country hosting the Head Office could not hold the position of Chief Executive Officer should be revoked as a matter of urgency.

Executive's Response

The Executive responded as set out below.

The Authority's employee establishment was increased from 163 to 184. This followed the approval of twenty-one new positions for the Projects Section. However, the employee complement as at 29th July, 2019 was 148, of which seventy three were Zambian nationals while seventy five were Zimbabwean nationals, representing 49 per cent and 51 per cent respectively for the two contracting states.

Recruitments undertaken during the period July, 2017 to July, 2019

The Table below indicates the recruitments that were effected from the time the employment equity policy between the two contracting states was formulated and implemented.

No	Position	Salary Grade	Category	Status	Remarks
1	Management Accountant	ZRA 4	Middle Management	The Management Accountant was employed on 1 st June 2018	Filled by a Zambian national
2	Contracts Engineer	ZRA 4	Middle Management	The Contracts Engineer was employed on 4 th October 2017	Filled by a Zimbabwean national
3	Manager – Environment	ZRA 4	Middle Management	The Manager – Environment was employed on 3 rd April 2018.	Filled by a Zimbabwean national
4	Scheduling and Planning Engineer	ZRA 4	Middle Management	The Scheduling and Planning Engineer was employed on 17 th September 2017	Filled by a Zambian national. However, the said position fell vacant on 10 th June 2019.
5	Project Manager – Batoka Gorge Hydro-Electric Scheme	ZRA 4	Middle Management	The Project Manager – Batoka Gorge Hydro-Electric Scheme was employed on 10 th June 2019	Filled by a Zambian national.
6	Designs Engineer	ZRA 4	Middle Management	The Designs Engineer was employed on 26 th November 2018	Filled by a Zambian national
7	Procurement Officer	ZRA 6	Non-Managerial	The Procurement Officer was employed on 17 th September 2018	Filled by a Zambian national
8	Dam Safety Monitoring Technician	ZRA 6	Non-Managerial	The Dam Safety Monitoring Technician was employed on 4 th June 2018	Filled by a Zambian national

9	Telemetry Technician	ZRA 6	Non-Managerial	The Telemetry Technician was employed on 7 th November 2017	Filled by a Zambian national
10	Personal Assistant to the Board Secretary / Corporate Services Director	ZRA 7	Non-Managerial	The Personal Assistant was employed on 4 th December 2017	Filled by a Zambian national.
11	Administrative Assistant – Kariba	ZRA 7	Non-Managerial	The Administrative Assistant was employed on 19 th March 2019	Filled by a Zambian national.
12	Accounts Assistant – Kariba	ZRA 7	Non-Managerial	The Accounts Assistant – Kariba was employed on 1 st April 2019	Filled by a Zambian national.
13	Assistant Foreman – Dam Maintenance	ZRA 8	Non-Managerial	The Assistant Foreman – Dam Maintenance was employed on 4 th June 2018	Filled by a Zambian national.
14	Gauge Reader (2)	ZRA 10	Non-Managerial	The two (2) Gauge Readers were employed on 1 st January 2018 and 12 July 2018, respectively.	Filled by Zambian nationals.

- **Vacant positions**

The vacant positions would be filled in accordance with the provisions of the Employment Equity between the Contracting States Policy as follows:

No	Position	Salary Grade	Category	Status	Remarks
1	Senior Manager – Dam Management Services	ZRA 3	Senior Management	Recruitment and selection process in progress	The position would be filled by a Zambian national

2	Project Manager – Kariba Dam Rehabilitation Project	ZRA 4	Middle Management	Recruitment and selection process is underway	The position would be filled by a Zimbabwean national
3	Projects Engineer – Civil	ZRA 4	Middle Management	To be recruited in 2020	The position would be filled by a Zimbabwean National
4	Projects Engineer – Electrical	ZRA 4	Middle Management	To be recruited in 2020	The position would be filled by a Zimbabwean national
5	Projects Engineer – Mechanical	ZRA 4	Middle Management	To be recruited in 2020	The position would be filled by a Zambian national
6	Scheduling and Planning Engineer	ZRA 4	Middle Management	Recruitment and selection process is underway	The position would be filled by a Zambian national
7	Stakeholder Relations Officer	ZRA 5	Lower Management	Recruitment and selection process is underway	The position would be filled by a Zambian national
8	Safety, Health and Environmental Officer (X3)	ZRA 5	Lower Management	Recruitment and selection process is underway	The positions would be filled by two Zambian nationals and one Zimbabwean national
9	Project Planning Officer (X2)	ZRA 5	Lower Management	Recruitment and selection process is underway	One position to be filled by a Zambian national and the other by a Zimbabwean national.
10	Quality and Risk Officer (X2)	ZRA 5	Lower Management	Recruitment and selection process is underway	One position to be filled by a Zambian national and the other by a Zimbabwean

					national.
11	Contracts Management Specialist (X3)	ZRA 5	Lower Management	Recruitment and selection process is underway	One position to be filled by a Zambian while three positions would be filled by Zimbabwean nationals
12	Projects Accountant	ZRA 5	Lower Management	Recruitment and selection process is underway	The position would be filled by a Zambian national
13	Dam Maintenance Supervisor	ZRA 6	Non-Managerial	Recruitment and selection process is underway	The position would be filled by a Zimbabwean national
14	Civil Technician (2)	ZRA 6	Non-Managerial	Recruitment and selection process is underway	One position would be filled by a Zambian national while the other would be filled by a Zimbabwean national
15	Accounts Officer	ZRA 6	Non-Managerial	Recruitment and selection process is underway	The position would be filled by a Zimbabwean national
16	ICT Technician	ZRA 6	Non-Managerial	Recruitment and selection process is underway	The position would be filled by a Zambian national
17	Public Relations and Communications Officer	ZRA 6	Non-Managerial	Recruitment and selection process is underway	The position would be filled by a Zambian national
18	Administrative Assistant	ZRA 7	Non-Managerial	Recruitment and selection process is underway	The position would be filled by a Zambian national
19	Dam Safety Monitoring Assistant	ZRA 7	Non-Managerial	Recruitment and selection process is underway	The position would be filled by a Zimbabwean national

20	Projects Assistant (X2)	ZRA 7	Non-Managerial	Recruitment and selection process in underway for one position and the position to be filled in 2020	The positions would be filled by Zambian nationals
21	Accounts Clerk	ZRA 8	Non-Managerial	Recruitment and selection process is underway	The position would be filled by a Zambian national
22	Dam Maintenance Assistant	ZRA 9	Non-Managerial	Recruitment and selection process is underway	The position would be filled by a Zimbabwean national
23	Painter	ZRA 9	Non-Managerial	Recruitment and selection process is underway	The position would be filled by a Zimbabwean national
24	Motor Vehicle Workshop Attendant (2)	ZRA 10	Non-Managerial	Recruitment and selection process is underway	The positions would be filled by Zambian nationals
25	Dam Safety Monitoring Attendant	ZRA 10	Non-Managerial	Recruitment and selection process in progress	The position would be filled by a Zimbabwean national
26	General Worker	ZRA 11	Non-Managerial	Recruitment and selection process in progress	The position would be filled by a Zimbabwean national

After the recruitments for the above vacant positions, the employee complement between the contracting states would be 184, of which ninety two would be Zambian nationals while the other ninety two would be Zimbabwean nationals, representing 50 per cent each for the two contracting states, respectively.

Committee's Observations and Recommendations

The Committee awaits a progress report on the recruitment of officers to fill the vacant positions and consequently on the equal employment complement for the two contracting states. Further, the Committee reiterates its earlier

recommendation that the agreement that a national of the country hosting the Head Office of the Authority cannot hold the position of Chief Executive Officer should be revoked as a matter of urgency. The Committee awaits a progress report on this matter.

The Contribution of the Tourism Sector to Socio-Economic Development

10.12 Improve data collection and provision of statistics

The previous Committee had recommended that the Tourism Satellite Account (TSA) should be operationalised.

Executives' Response

The Executive responded that the TSA Technical Committee was unable to mobilise resources to carry out the planned domestic survey. The TSA had, therefore, not yet been operationalised. Ministry of Tourism and Arts, through the Tourism Development Fund had planned to undertake tourism domestic and exist surveys. The Domestic survey would highlight the tourism activities of local citizens, while the exit survey would focus on international arrivals in Zambia. The Committee was informed that the whole exercised was supposed to be concluded by December, 2019. The two surveys would significantly contribute towards efforts for the full operationalisation of the TSA.

The Committee was informed that a domestic survey focused on tourist activities of citizens. It investigated, among others, preferred tourist activities, destinations, seasons, among others. The survey was undertaken within the country of preference by the usual residents of a country. Therefore, in the Zambian case, the focus would be on Zambian citizen and/or nationalities whose country of residence by United Nation World Tourism Organisation (UNWTO) definition would be Zambia. An exist survey focused on international arrivals to Zambia. These were travellers who by the UNWTO definition would be considered an international tourist in Zambia. The focus of such a survey was to investigate, among other things, the country of origin of a tourist, the average time such a tourist spent in Zambia during the trip, the average length of stay, what attracted them to Zambia, how they heard about Zambia and the perceptions held by Zambia.

Committee's Observations and Recommendations

The Committee notes the response and requests a progress report on the completion of the domestic and exit surveys, which are expected to inform the operationalisation of the Tourism Satellite Account.

10.13 Improve Air Travel

The previous Committee had recommended that the Government should put in place strategies to improve Zambia's aviation industry. This could include finding ways of increasing the number of airlines operating in the country; attracting airlines that would operate direct flights to and from Zambia's main tourist markets, both domestic and foreign; reducing the cost of domestic air travel; and reviving the drive to have a national airline.

Executive's Response

The Executive responded as follows:

- (i) the Ethiopian and Zambian Governments had completed the negotiation of a shareholders' agreement; and
- (ii) Ethiopian Airlines had submitted the lease and maintenance agreement to the Industrial Development Corporation (IDC). The IDC was in the process of reviewing the agreement.

The Executive further responded that the re-establishment of a national airline, the shareholder's agreement and other subsequent agreements had been signed. The Board and the Chief Executive Officer of Zambia Airways Limited (2014) were appointed in 2018. The management of Zambia Airways Limited (2014) was in the process of developing the airline's business plan.

In terms of financing, the Government through the IDC was in consultation with a multilateral development financial institution in conjunction with a local bank in raising the equity contribution of \$11.5 million. This amount would be reflected on the balance sheet of IDC as the borrower and the process was expected to be completed by the end of the third quarter of 2019. So far, IDC had mobilised K14 million to be applied towards pre-operational related expenses from the domestic financial sector.

With reference to attracting more airlines into the country, the Committee was informed that the number of airlines operating in Zambia had increased in 2019, following the commencement of operations by Air Tanzania in February, 2019. The Committee was further informed that discussions were still on-going with airlines such as Qatar Airways; Air Mauritius; Air Zimbabwe and Egypt Air.

Committee's Observations and Recommendations

The Committee notes the response and requests an update on the matter.

10.14 Lusaka National Park and Mosi-oa-Tunya National Park

The Committee recommended that the Department of National Parks and Wildlife should develop, implement and enforce management plans for all national parks and game management areas in order to eliminate unsustainable practices.

Executive's Response

The Executive responded that the Wildlife Strategic Plan had not yet been developed by the Department of National Parks and Wildlife. Following the launch of the Wildlife Policy in 2019, the Policy would inform the development of a Wildlife Strategic Plan. The Department of National Parks and Wildlife was engaging cooperating partners to support the development of the Strategic Plan in 2020 as it was not budgeted for in the national budget.

Committee's Observations and Recommendations

The Committee notes the response and requests a progress report on the development of the Wildlife Strategic Plan.

10.15 Lusaka National Museum and Livingstone Museum

The previous Committee had recommended that the Government should find concrete solutions to the following problems faced by the Lusaka National Museum and the Livingstone Museum:

- (i) poor state of the buildings;
- (ii) shortage of specialised staff;
- (iii) poor funding to the institutions; and
- (iv) lack of adequate and appropriate storage facilities for various artefacts.

Executive's Response

The Executive responded as set out below.

Livingstone Museum

SN	QUERY	RESPONSE
	The poor state of the building	<ul style="list-style-type: none">• The state of the museum building was still the same as there had been no capital funding from the Ministry of Tourism and Arts (MOTA) to start major renovation works.• However, the museum was doing minor maintenance works such sealing of the roof and replacing of damaged ceiling panels in order to prevent the building from being in a deplorable state. The works were done using the little income generated by the museum.
	Shortage of specialised staff	<ul style="list-style-type: none">• There had been no improved funding to the Livingstone Museum to send staff for specialized training in their respective fields. However, the museum had managed to support six members of staff in the Taxidermy training in through the National Museum Board Secretariat. Another officer had been sent to Japan for specialised training through the JICA sponsored training and was expected to return from training in November 2019.• UNZA now provided training in archaeology and intangible heritage though there were still some museum fields that were still not offered

		at our learning institutions such as Conservation and, Social/Cultural Anthropology.
	Poor funding to the institution	<ul style="list-style-type: none"> • The grants position had remained stagnant as such the Livingstone museum was still struggling with the problem of meeting its operational costs and other programmes such as field research and outreach programmes. Further the museum was in five months' salary arrears starting January to May, 2019 due to non-release of grants by Ministry of Finance. • No research fund had been introduced in the light of stagnant grants. However, the museum had established some collaborative networks with both international and local partners who were sponsoring some field research and temporary exhibitions.
	Lack of appropriate storage facilities for various artefacts	<ul style="list-style-type: none"> • The museum still had inadequate financial resources to upgrade the current storage facilities. • Land had been sourced from the Livingstone City Council to build a specialised designed building for storage according to the type of collections. • The intangible heritage facilities required enough funding for the museum to implement it.

Committee's Observations and Recommendations

The Committee requests an update on the measures taken to address the challenges faced at the Lusaka National Museum and Livingstone Museum.

10.16 Development of Infrastructure

The previous Committee had recommended that infrastructure such as roads, the airstrip and the water reticulation system in Siavonga District should be improved as a matter of urgency so that investors could be attracted to the district to invest in other tourism related activities away from Lake Kariba, such as game farming.

Executive's Response

The Executive responded that the Government had not yet mobilised the funds for the construction of the airstrip. The Committee was further informed that due to austerity measures, Government was not implementing new projects and had prioritised projects that were at 80 per cent and above complete. Therefore,

construction of an airstrip in Siavonga would only be considered when all the projects above 80 per cent were completed, funds permitting.

Committee's Observations and Recommendations

The Committee request awaits a progress report on the matter.

10.17 Livingstone Bus Terminus

The previous Committee had urged the Government to ensure that adequate funding was provided so that the Livingstone Bus Terminus could be completed without any further delay.

Executive's Response

The Committee was informed that the Government had engaged the Zambia National Service to complete the remaining works on the terminus. As of July 10th 2019, the Zambia National Service (ZNS) were on site and works had since commenced. The total contract amount signed with the ZNS to complete both the terminus and market in Livingstone was K35,195,703.01. Out of that allocation, an advance amount of K3,849,642.03 was paid for the bus terminus while K4,271,991.64 was paid for the market. The National Pension Scheme Authority was funding the completion of works on this infrastructure.

Committee's Observations and Recommendations

The Committee requests a progress report on the matter.

11.0 Conclusion

The Committee noted that the petroleum industry lagged behind in terms of meeting the aspirations of the Seventh National Development Plan, namely: enhancing strategic petroleum reserves; ensuring efficient fuel delivery systems; and promotion of petroleum and gas exploration. Both the downstream and upstream sub sectors faced major challenges that required urgent attention in order to grow the industry.

Notable challenges included failure to effectively implement the 2019 Energy Policy and the virtual absence of a policy to govern the upstream sub sector. This was exacerbated by the lack of a strategic plan for the petroleum industry and inadequate funding. Another challenge were lack of geological and geophysical data, which was critical for effective participation at international oil and gas trade shows, exhibitions and fairs where the country's potential could be showcased so as to attract investment. The petroleum industry also suffered from lack of recapitalisation of key infrastructure, namely Indeni Petroleum Refinery and TAZAMA Pipeline, which resulted in operational inefficiencies, given the age and the outdated technology still in use at the two facilities. These inefficiencies

permeated the entire petroleum value chain and resulted in the increased cost of petroleum products in the country.

The petroleum industry is critical to the development of the country and the Committee is therefore extremely concerned that the industry is not receiving the attention necessary to enable it flourish and have an appropriate impact on Zambia's economic life. The Committee is therefore, hopeful that the Executive will take the recommendations made in this Report seriously and implement them expeditiously in the interest of the country.

Finally, the Committee wishes to pay tribute to all the stakeholders who appeared before it and tendered both oral and written submission. The Committee also wishes to thank you, Mr Speaker, and the office of the Clerk of the National Assembly for the guidance and services rendered to it throughout the Session.

E K Belemu, MP
CHAIRPERSON

June, 2020
LUSAKA

APPENDIX I – LIST OF WITNESSES

Ministry of Energy

Mr T Kaunda, Permanent Secretary
Mr D Thawethe, Managing Director, TAZAMA Pipeline Limited
Mr D Lungu, Managing Director, Indeni Petroleum Refinery Limited
Ms V Mtamila, Chief Planner
Ms S Ndhlovu, Director, Human Resource and Administration
Mr I Mutale Manager Planning and Development
Mr E Mumba, Legal Counsel
Mr L Chinjenje, Director Petroleum

Ministry of Mines and Minerals Development

Mr B B Mulenga, Permanent Secretary
Mr M Chibonga, Director
Mr M S Nyirenda, Director
Mr C Mukofu, Director – Geological Survey
Mr F Chibesakunda, Chief Hydro Laboratory Officer
Ms P Nakombe, Principal Planner
Mr B Kateka, Acting Director-Mines

Ministry of Transport and Communications

Engineer M Lungu, Permanent secretary
Mr S Mbewe, Director - Planning
Mr N Chikwenya, Director Transport
Ms M Chiluwe, Principal Planner
Mr D Chipili, Planner

Ministry of Housing and Infrastructure Development

Engineer C Mushota, Permanent Secretary
Ms M Kapasa, Legal Counsel
Mr R Banda, Director – Planning , Research and Monitoring
Mr D Mfunu, Director-Public Infrastructure
Mr M Chilembo, Director - Housing
Mrs C Mazimba, Director – Finance
Mr M Ngulube, Executive Director – National Council for Construction
Mr C Kaonga, Principal Officer National Council for Construction

Ministry of Finance

Dr P Mulenga, Permanent Secretary
Ms I Mwenya, Principal Planner
Mr C Mudulu, Senior Economist
Ms M Lubila, Chief Petroleum Officer

Zambia Public Procurement Authority

Mr C Chichoni, Director General
Ms V Kamanya, Director Compliance Monitoring
Ms M Ndhlovu, Board Secretary
Mr B Thumuka, Principal Officer - Technical Services
Mr R Kalumbi, Principal Officer - Research and Development

Zambia Environmental Management Agency

Mr J Msimuko, Director General
Ms K Banda, Director - Legal
Mr G Sikaundi, Director - Operations

Zambia Bureau of Standards

Ms M Lungu, Acting Executive Director
Mr A Chinongu, Laboratory Manager

Zambia Metrology Agency

Mr F Hamutunda, Director Scientific Metrology
Mr H Nkobeni, Director Legal Metrology
Mr D Chibwe, Manager Legal Metrology

Energy Regulation Board

Mr A Polito, Director Technical Regulations
Mr E Mumba, Legal Counsel
Mr A Mwila, Director Economic Regulation

Alfred H Knight (Z) Limited

Ms M Chanika, Head of Department - Lubricants

Zambia Institute for Policy Analysis and Research

Ms P Nakamba, Executive Director
Mr B Tembo, Research Fellow
Ms M N Mubanga, Research Fellow
Mr S Manchishi, Associate Researcher

Petroleum Transporters Association of Zambia

Mr R Malipenga, President
Mr B Tembo, Secretary General
Mr S Khalif, Executive Member
Mr K Kapela, Trustee

First Quantum Minerals

Mr J Gladston, Government Relations Officer
Mr K Chitangala, Government Relations

Consumer Unity and Trust Society

Mr Y M Dodia, Board Member
Ms M Tembo, Member
Mr C Mwansa, Member
Ms R Mwanza, Member
Ms K Muyunda, Programme Officer
Mr N Simukoko, Communications and Advocacy Officer

INDENI Petroleum Refinery Limited

Mr D Lungu, Managing Director
Mr N Milambo, Business Planning Manager

Tanzania Zambia Mafuta Pipeline Limited

Mr D Thawethe, Managing Director
Mr I Mutale, Manager-Plant and Development

University of Zambia – School of Mines

Professor E Chanda, Professor
Professor I Nyambe, Professor
Dr B Besa, Dean
Dr S Kambani, Head of Department, Senior Lecturer

Sargas Oil Limited

Mr F El Saadi, Managing Director
Mr G Patnaik, Senior Vice President
Mr K Abhisheck , Chief Geologists
Mr K Sichilongu, Liaison Officer

PUMA Zambia Limited

Mr P Simukwayi, Managing Director
Mr K Phiri, Supply Manager
Ms A Sondoyi, Operations Manager
Mr K Silumesi, Retail Manager

APPENDIX II - List of National Assembly Officials

Ms C Musonda, Principal Clerk of Committees
Mr H Mulenga, Deputy Principal Clerk of Committees (FC)
Mrs C K Mumba, Senior Committee Clerk (FC)
Mrs S B M Nyirongo, Committee Clerk
Mrs D H Manjoni, Personal Secretary II
Ms A Phiri, Typist
Mr M Chikome, Committee Assistant
Mr D Lupiya, Committee Assistant