

5 *INSTITUTIONAL AND LEGISLATIVE FRAMEWORK, DEVELOPMENT POLICIES, AND INTERNATIONAL TREATIES AND GUIDELINES*

5.1 *INTRODUCTION*

This *Chapter* sets out the relevant legal and policy context applicable to the development of hydropower projects in Zambia and Zimbabwe. Specifically, this chapter summarises the following:

- The relevant institutional framework in Zambia and Zimbabwe involved in the regulation of this Project;
- Relevant Zambian and Zimbabwean environmental and social laws and Regulations which are applicable to the Project;
- Development policies applicable to the Project for both Zambia and Zimbabwe;
- International treaties, conventions and protocols relevant to the Project and to which Zambia and/ or Zimbabwe is a signatory;
- Environmental and social guidelines and standards developed by the Southern African Power Pool (SAPP), and international organisations such as the International Finance Corporation (IFC) and the World Bank, with which the Project will need to align; and
- Other international guidelines and standards directly applicable to dam-building and hydropower projects which are considered international good practice.

5.2 *ZAMBIA*

5.2.1 *Zambian Institutional Framework*

Ministry of Lands, Natural Resources and Environmental Protection

The Ministry of Lands, Natural Resources and Environmental Protection is charged with the critical responsibility of land administration, natural resource management and environmental protection on behalf of the people of Zambia.

The following Departments fall under this Ministry:

- Human Resource and Administration;
- Lands and Deeds;
- Lands Department;
- Survey Department;

- Forestry Department; and
- Environment and Natural Resources Management Department (ENRMD).

Environment and Natural Resources Management Department

The Environment and Natural Resources Management Department (ENRMD) was established by presidential declaration which merged the then Ministry of Tourism (MOT) and the Ministry of Environment and Natural Resources (MENR) in 2002. It became operational in February 2003 but was not established by an Act of Parliament.

Following the election of the Patriotic Front Government in 2011, two re-alignment processes were declared which re-set portfolio functions. The first Presidential declaration of 2011 resulted in placement of the “Natural Resources” functions of the department under the Ministry of Mines and the “Environment” under the Ministry of Local Government, Housing, Early Education and Environmental Protection (MLGHEEEP). Later, another declaration was made that re-merged the Environment and natural Resources functions into another new institution, the Ministry of Lands, Natural Resources and Environmental Protection.

The ENRMD is responsible for the overall policy formulation on environment, natural resources and pollution control in the Ministry which is the focal point for all environmental and natural resource management issues in the country. The department also co-ordinates, monitors and evaluates the operations of the executive agencies that have been created to implement policies on behalf of the government ⁽¹⁾.

The Department of Environment and Natural Resources Management focuses on the achievement of the following six objectives as they relate to issues of the environment and natural resources as outlined in the Strategic Plan (2002 – 2006), which is currently under review):-

- To facilitate and promote research and development in environment, wildlife, forestry and cultural heritage in order to increase knowledge and its utilisation;
- To facilitate and monitor the implementation of international agreements and treaties in environment and natural resources in order to promote Zambia's interests and meet international obligations;
- To promote investment in environment and natural resources in order to contribute to employment creation, poverty alleviation and supply of raw materials;
- To facilitate the quality provision of education and training in environment and natural resources in order to contribute to their effective management, sustainable development and utilisation;

(1) <http://www.ministryoflands.gov.zm/index.php/natural-resources-and-environment>

- To undertake and facilitate rehabilitation of degraded habitats in order to restore the productivity of Zambian flora and fauna; and
- To promote the effective management of forest, wildlife and heritage resources in order to ensure their sustainable utilisation and contribute to the alleviation of rural poverty.

In order to achieve the above objectives, the Department shall perform functions such as:

- Analysing and initiating the formulation of policies on the management of the environment and natural resources in order to contribute to the sustainable socio-economic development of the country;
- Reviewing existing and developing new legislation on the management of the environment and natural resources in order to ensure quality environmental management;
- Facilitating, promoting and co-coordinating research on the management of the environment and natural resources in order to achieve sustainable environmental management;
- Undertaking and promoting the implementation of education and public awareness strategies and programmes in order to foster community participation in environment and natural resources;
- Promoting and coordinating bilateral and multi-lateral cooperation projections and treaties in environment and natural resources management in order to promote Zambia's interest and meet international obligations;
- Planning, coordinating, monitoring and evaluating environment and natural resources management programmes and projects in order to ensure their effective implementation; and
- Providing advisory functions to the general public and stakeholders in matters relating to environment and natural resource management.

The Department is headed by a Director and comprises three units namely:

- Human Resources and Administration Unit (HRAU);
- Environmental Affairs Management and Co-ordination Unit (EAMCU);
- Natural Resources Management and Co-ordination Unit (NRMCU); and
- Human Resources and Administration Unit.

The Zambia Environmental Management Agency

The Zambia Environmental Management Agency (ZEMA) falls under the Ministry of Lands, Natural Resources and Environmental Protection. ZEMA, previously known the Environmental Council of Zambia (ECZ),⁽¹⁾ is the umbrella environmental institution in Zambia and the main lead agency on matters pertaining to environmental impact assessments (EIA). It is empowered by the Environmental Management Act (No. 12 of 2011) (EMA) to identify projects, plans and policies for which an EIA is necessary.

The general functions of the ZEMA are to ensure the sustainable management of natural resources, the protection of the environment, and the control of pollution, as provided under Article 9(1) of the EMA. However, more specifically, the ZEMA serves *inter alia* to:

- Co-ordinate the implementation of activities of all government ministries, appropriate authorities and conservancy authorities in matters relating to the environment;
- Develop standards and guidelines relating to the protection of air, water, land and other natural resources;
- Provide for environmental monitoring and auditing as well as establishing and managing of the environmental fund;
- Develop and enforce measures aimed at preventing and controlling pollution;
- Advise the government on the formulation of policies on all aspects of the environment and make recommendations for the sustainable management of the environment;
- Advise on all matters relating to environmental conservation, protection and pollution control, including necessary policies, research, investigations and training;
- Initiate, conduct and promote research, surveys, studies, training and investigations in the interests of environmental management;
- Identify projects, plans and policies that need environmental impact assessments;
- Monitor trends with respect to natural resources, their use and impact on the environment and make necessary recommendations to the appropriate authority;

(1) The Environmental Council of Zambia (ECZ) was a statutory body created under an Act of Parliament, the Environmental Protection and Pollution Control Act (EPPCA) of 1990, Cap 204 of the Laws of Zambia. The EPPCA has since been repealed and replaced by the Environmental Management Act (No. 12 of 2011) (EMA). Under the EMA, the ECZ has been renamed as the Zambian Environmental Management Agency (ZEMA).

- Undertake general education programmes for the purpose of creating public awareness of the environment;
- Provide for public consultation in environmental decision – making and access to environmental information;
- Request information on proposed projects and advise stakeholders on projects, programmes, plans and policies for which environmental assessment is necessary; and
- Facilitate the implementation of international environmental agreements and conventions to which Zambia is a party.

The services provided by the ZEMA specifically in relation to EIA studies include:

- Assisting the developer to determine the scope of EIA studies;
- Reviewing project briefs, terms of reference, and environmental impact statements (EIS) and decision-making;
- Disclosure of the EIS to the public through the media;
- Holding public hearing meetings to discuss the EIS with stakeholders;
- Conducting verification surveys of the affected environment;
- Monitoring the project once implemented;
- Conducting compliance audits of the project between 12 and 36 months after implementation; and
- General administration of all the Regulations under the EMA.

ZEMA has a number of units which control various aspects of environmental pollution planning and environmental management. These have been organised under two departments:

- *The Pollution Control Inspectorate*, which is responsible for all pollution and regulation issues pertaining to waste, emissions and toxic substances. This inspectorate also has a dedicated unit responsible for EIAs.
- *The Planning and Information Management Department*, which comprises units in charge of planning, monitoring, education, communication, information, documentation and data management.

The Zambezi River Authority (ZRA), as the project proponent of the Batoka HES project which “*may have an effect on the environment*” ⁽¹⁾, are required to submit an EIA to the ZEMA for approval before “*undertaking*” this Project, and are required to abide to the “*conditions imposed by NEMA in that approval*” ⁽²⁾.”

Ministry of Tourism and Arts

The Ministry of Tourism and Arts was created on 10th July, 2011 after realignment of Government Ministries by His Excellency Mr. Michael Chilufya Sata, the President of Republic of Zambia. This brought together the portfolio functions of tourism from former Ministry of Foreign Affairs and Tourism and the portfolio functions of Culture from the Ministry of Chiefs and Traditional Affairs. This was done in order to streamline and rationalise the functions and operations of the tourism and cultural sector.

The Zambia Wildlife Authority

The Zambia Wildlife Authority (ZAWA) is a corporate body established by the Zambia Wildlife Act of 1998. The transformation of ZAWA into the new Department of National Parks and Wildlife is currently underway and will be effected through the Zambia Wildlife (Amendment) Bill 2015 being tabled in parliament in June 2015. To date this does not appear to have occurred. Before the enactment and commencement of the new law, ZAWA remains the body corporate with powers and functions under the current law. By implication, the current duties and responsibilities of ZAWA in the management of the national wildlife estate remain legally in force ⁽³⁾.

The primary objectives of ZAWA are:

- To improve the quality of life amongst communities in wildlife estates and the maintenance of sustainable biodiversity in national parks and game management areas;
- To reverse the decline in wildlife resources;
- To improve wildlife resource management to a level which will secure a sustainable flow of benefits from such wildlife resources; and
- To considerably improve the wildlife resource base investment in co-operation with the private sector and local communities.

Upstream of the proposed Batoka Gorge HES lies the Mosi-oa-Tunya National Park on the Zambian side of the Zambezi River. ZAWA are key stakeholders in the ESIA process, with an interest in potential impacts to wildlife as a result of the Project.

(1) section 29 of the Environmental Management Act (EMA), 2011

(2) section 29 of the EMA, 2011

(3) Zambia Wildlife Authority-ZAWA Facebook Page. Available at

https://www.facebook.com/permalink.php?story_fbid=562110320559311&id=420351424735202. Accessed 07/07/2015

The National Heritage Conservation Commission

The National Heritage Conservation Commission (NHCC), formally known as the Commission for the Preservation of Natural and Historical Monuments and Relics (National Monuments Commission), is the national institution mandated to manage and conserve Zambia's cultural and natural heritage resources, including significant:

- historic/architectural/buildings;
- historic sites;
- anthropological sites;
- archaeological sites;
- geomorphological sites;
- geophysical sites;
- paleontological sites; and
- Ecological and other sites.

Although ZEMA is mandated to review the EIA in its entirety, the NHCC are a key stakeholder in the review of the cultural heritage impact assessment; comments of which will be submitted to ZEMA.

The National Museum Board

The National Museum Board of Zambia (NMB) is a corporate body which has the principal role of preserving the nation's history and movable heritage. The Board is mandated to collect, document, present to the public and to preserve for posterity Zambia's movable heritage.

Ministry of Mines, Energy and Water Development

The Ministry of Energy and Water Development has been merged with the Ministry of Mines to form a new Ministry of Mines, Energy and Water Development. The Ministry comprises six Departments, namely; the Department of Geological Survey; the Department of Mine Safety; the Department of Energy (DoE); the Department of Water Affairs (DWA); the Department of Planning and Information and the Department of Human Resource and Administration.

The functions of the Departments relevant to the project are described below.

The functions of the DoE are:

- To develop, articulate and implement a Policy on Energy;
- To formulate programmes for the development of the energy sector;
- To ensure that there are efficient and reliable supplies of energy for socio-economic development;
- To integrate the energy sector into Zambia's national and regional development strategies; and
- To regulate the energy sector through appropriate legislation including the development of new laws and by-laws.

The functions of the DWA include the following:

- To oversee and control activities of water resource development and management in order to prevent the indiscriminate consumption of water resources;
- The provision of sufficient and reliable data on water resources availability and demand in the country, to allow for effective planning;
- Utilisation and management of water resources; and
- The development and management of water conservation.

The DWA is comprised of a Groundwater Resources Section, a Surface Water Resources Section and a Water Resources Management Section. The Surface Water Resources Section and the Water Resources Management Section will have an interest in how the Project will affect surface water flows in the Batoka Gorge catchment and the effects on current water resource use in the area. These governmental institutions will govern to what extent the current water use system can be altered.

In addition to these two departments, the MEWD supervises the following statutory/parastatal bodies:

- The Energy Regulation Board (ERB);
- ZESCO Ltd;
- The Water Resources Management Authority; and
- The Office for Promoting Private Power Investment (OPPPI).

The Energy Regulation Board

The Energy Regulation Board (ERB) has the mandate of regulating the energy sector in line with the provisions of the Energy Regulation Act of 2003. The ERB has the responsibility of ensuring that power generating utilities earn a reasonable rate of return on their investments that is necessary to provide a quality service at affordable prices to the consumer.

In order to carry out this role, the ERB, among other functions, ensures that all energy utilities in the sector are licensed, monitors levels and structures of competition, and investigates and remedies consumer complaints.

The unit price of the electricity generated by the Batoka HES will be regulated by the ERB.

ZESCO Limited

ZESCO Limited is a parastatal, with the main function of producing power in Zambia. ZESCO produces approximately 80 % of the electricity consumed in the country and has historically been the main player in the generation, transmission and distribution of electricity in Zambia. In addition, ZESCO represents Zambia in the Southern African Power Pool. Due to the ever increasing demand for electricity both in Zambia and in the region, ZESCO is currently being forced to source more electricity from independent power

producers (IPPs) such as Lunsemfwa Hydro Power Company (LHPC). The electricity produced by the Batoka HES will be sold to the national grid, which is managed and maintained by ZESCO.

Water Resources Management Authority

Due to the increase in population, the demand for water for power generation, direct consumption and other uses of water has increased in Zambia. As such, the Water Resources Management Authority was developed in response to these often conflicting demands for water. The Water Resources Management Authority is essentially an executive wing of government which provides necessary information for the control of abstractions from water bodies in Zambia. Any person who wishes to store or divert water from public streams and waterways for primary, secondary, or tertiary use must obtain permission from the Water Resources Management Authority.

Other Line Ministries

Environmental and social issues cut across a wide variety of sectors and there are a number of government institutions and agencies which are involved in environmental and social management. Some of the ministries, sectoral agencies and authorities that may also need to be consulted as part of the Batoka HES include:

- Ministry of Agriculture and Livestock;
- Ministry of Health;
- Ministry of Education, Science and Vocational Training; and
- Ministry of Local Government and Housing.
- Ministry of Chiefs and Traditional Affairs (Zambian);
- Ministry of Home Affairs (Zimbabwean); and
- Ministry of Transport and Infrastructural Development (Zimbabwe).

The relevant institutions have been consulted with as part of the stakeholder engagement process, as described in *Chapter 6*.

5.2.2 *Zambian Environmental and Social Laws and Regulations*

The Zambian Environmental Management Act

The Zambian Environmental Management Act (EMA) (Act 12 of 2011) is the principal law on integrated environmental management in Zambia. The Zambian EMA was enacted in April 2011 to repeal and replace the Environmental Protection and Pollution Control Act (EPCCA) (CAP 204) and its Amendments.

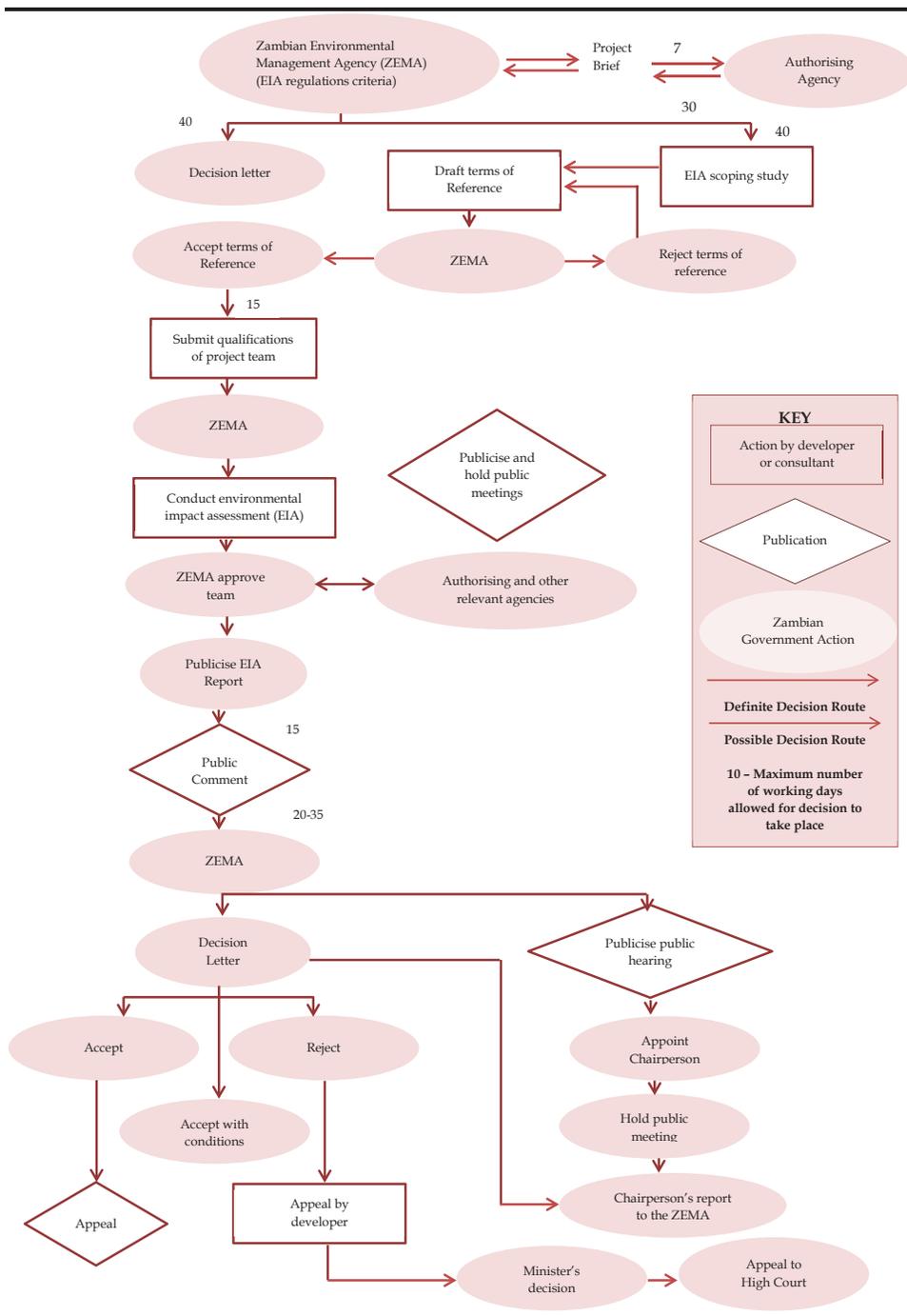
Environmental Impact Assessment Regulations

The Environmental Impact Assessment (EIA) Regulations, which provide the framework for conducting and reviewing environmental impact assessments for any project, fall under the EPPCA (Statutory Instruments No. 28 of 1997).

The Regulations enacted under the EPPCA are still in force until the Minister enacts new Regulations under the Zambian EMA (Act, No 12 of 2011).

The EIA process to be undertaken for this Project is illustrated in Figure 5.1.

Figure 5.1 Zambian ESIA Process



Source: SAIEA (2012)

The Environmental Management (Licensing) Regulations, S.I. No. 112 of 2013

The Environmental Management (Licensing) Regulations were published under the Zambia EMA and provide for licensing requirements pertaining to specific subject areas, including:

- air and water pollution;
- waste management;
- hazardous waste;
- pesticides and toxic substances; and
- ozone depleting substances.

The Environmental Management (Licensing) Regulations have provided for the repeal of the following legislation:

- The Waste Management (Licensing of Transporters of Wastes and Waste Disposal Sites) Regulations, S.I. No. 71 of 1993;
- The Water Pollution Control (Effluent and Waste Water) Regulations, S.I. No. 72 of 1993;
- The Pesticides and Toxic Substances Regulations, S.I. No. 20 of 1994;
- The Air Pollution Control (Licensing and Emission Standards) Regulations, S.I. No. 141 of 1996;
- The Environmental protection and Control (Ozone Depleting Substances) Regulations, S.I. No. 27 of 2001; and
- The Hazardous Waste Management Regulations, S.I. No. 125 of 2001.

Other Relevant Environmental and Social Legislation in Zambia

Environmental issues cut across a wide variety of sectors, as such there are numerous pieces of legislation in Zambia which have a bearing on the environment and should be considered during ESIA decision-making.

Table 5.1 presents a summary of the most relevant national legislation which may be applicable to the Project.

Table 5.1 *Summary of Relevant Zambian Environmental and Social Legislation*

Component	Applicable Legislative Instrument	Description of Legislative Instrument
Natural Resources and Heritage		
Water Resources	<ul style="list-style-type: none">• <i>Water Resources Management Act, No 21 of 2011</i>	<i>Provides for the management of water resources within Zambia.</i>

Component	Applicable Legislative Instrument	Description of Legislative Instrument
	<ul style="list-style-type: none"> <i>Water Supply and Sanitation Act, No 28 of 1997</i> 	<i>Provides for the supply of clean water and adequate sanitary conditions.</i>
Wildlife and Natural Resources	<ul style="list-style-type: none"> <i>Zambia Wildlife Act, No. 12 of 1998</i> 	<i>Provides for the establishment, control and management of National Parks; conservation and protection of wildlife and objects of interest in National Parks; the establishment of Game Management Areas; the licensing of hunting; control of possession of trophies and control of bush fires.</i>
	<ul style="list-style-type: none"> <i>Forests Act, Cap 199</i> 	<i>Provides for the establishment and management of National and Local forests, Conservation and protection of forests and trees, and licensing and sale of forest products. The Act also provides for the protection of 6 tree species nationally whether in a protected area or outside it.</i>
Fisheries and Wetlands	<ul style="list-style-type: none"> <i>Fisheries Act, No 22 of 2011</i> 	<i>Provides for the protection and sustainable utilization of fish in natural water bodies and control of fish farming.</i>
	<ul style="list-style-type: none"> <i>National Policy on Wetlands Conservation, September 2001</i> 	<i>Provides for the protection of wetlands.</i>
Noise & Vibration	<ul style="list-style-type: none"> <i>Part IV of EMA, No.12 of 2011</i> 	<i>Provides for noise emission standards to be established and requires permits to exceed said emissions.</i>
Explosives	<ul style="list-style-type: none"> <i>Explosives Act (No 10 of 1974) Regulations are in draft stage.</i> 	<i>Provides for the handling, storage and general management of explosives used for blasting in the mining and construction industry.</i>
Energy		
Energy	<ul style="list-style-type: none"> <i>Energy Regulation Act, Cap 436, 1995</i> 	<i>Provides for the control in the pricing of energy products in the country as well as the quality.</i>
	<ul style="list-style-type: none"> <i>The Petroleum Act, (No. 8 of 1995)</i> 	<i>The areas of the Petroleum Act of relevance to this project are regulations for the conveyance and storage of petroleum, inflammable oil and liquids.</i>
	<ul style="list-style-type: none"> <i>The Electricity Act, 1995</i> 	<i>Regulate the transmission, distribution and supply of electricity.</i>
Socioeconomic, Archeology and Cultural Heritage		
Health	<ul style="list-style-type: none"> <i>Public Health Act, No 22 of 1995</i> 	<i>Provides for the prevention of diseases, drainage, latrine and disposal of sewerage and treatment systems.</i>
Archaeological, Historical and Cultural	<ul style="list-style-type: none"> <i>National Heritage and Conservation Act, 1989</i> 	<i>The National Heritage Conservation Commission Act (CAP 173 of 1989) provides for the conservation of ancient cultural and natural heritage, relics and other objects of aesthetic, historical, pre-historical, archeological or scientific interest. Sections 35 and 36 of this Act require a developer to state the nature and extent of the development and to report to the Commission any new discoveries of items of archaeological or historical nature. This requirement applies to both the pre- and post-construction stage, particularly for archaeological resources which might not have been identified in pre-construction studies. Under this statute, the Commission has established Standards and Guidelines, and premised upon these, the significance of heritage resources (sites and objects) is determined.</i>

Component	Applicable Legislative Instrument	Description of Legislative Instrument
Roads and Land Use Planning		
Roads	<ul style="list-style-type: none"> <i>Roads and Road Traffic Act (Cap 464)</i> 	<i>An Act to make provision for the care, maintenance and construction of roads in Zambia, for the control of motor traffic, for the licensing of drivers and motor vehicles, for the compulsory third party insurance of motor vehicles, for the licensing and control of public service vehicles and public services, and for other miscellaneous provisions relating to roads and motor traffic.</i>
Land Use Planning Issues	<ul style="list-style-type: none"> <i>Town and Country Planning Act, Cap 283, 1962, as amended.</i> 	<i>Provides for the appointment of planning authorities whose main responsibilities are the preparation, approval and revocation of development plans. It also provides for the control of development and subdivision of land.</i>
	<ul style="list-style-type: none"> <i>Lands Conversion of Titles Act</i> 	<i>Provides for alienation, transfer, disposition and charge of land.</i>
	<ul style="list-style-type: none"> <i>Lands and Deeds Registry Act, Cap 174</i> 	<i>An Act to provide for the registration of documents; to provide for the issue of Provisional Certificates of Title and Certificates of Title; to provide for the transfer and transmission of registered land; and to provide for matters incidental to or connected with the foregoing.</i>
	<ul style="list-style-type: none"> <i>Lands Act, Cap 173, 1995</i> 	<i>The Act guarantees peoples' right to land while enhancing development. The Act recognises the holding of land under customary tenure and the Chief's role has been legally recognised, such that land cannot be converted or alienated without approval of the chief.</i>
	<ul style="list-style-type: none"> <i>Land Acquisition Act No. 2 of 1970</i> 	<i>The Act sets out regulations for compulsory acquisition of land and property and compensation for such acquisition.</i>
	<ul style="list-style-type: none"> <i>Agricultural Lands Act No. 57 of 1960</i> 	<i>Provides for the establishment of the Agricultural Lands Board and provides for tenant farming schemes.</i>
	<ul style="list-style-type: none"> <i>The Local Government Act, No 13 of 2010</i> 	<i>Provides for the establishment of Councils or Districts, the functions of local authorities and the local government system. Some of these functions relate to pollution control and the protection of the environment in general.</i>
Mining Regulations		
Quarries and Borrow Pits	<ul style="list-style-type: none"> <i>Mines and Minerals Development Act, 2008</i> 	<i>Regulates the law relating to mines and minerals. The Act provides for the granting of or, renewal and termination of mining rights. It also provides for the control of mining activities with regard to environmental protection.</i>
Investments, Energy Regulation, and Development		
Tourism	<ul style="list-style-type: none"> <i>Tourism and Hospitality Act, No 23 of 2007</i> 	<i>Provides for the promotion of tourism activities both locally and internationally.</i>
Investment and Taxes	<ul style="list-style-type: none"> <i>Public - Private Partnership Act, No 14 of 2009</i> 	<i>Provides for the encouragement of private sectors partnering with the government in the development and execution of certain nationally important projects</i>
	<ul style="list-style-type: none"> <i>Zambia Development Agency Act No 11 of 2006</i> 	<i>An Act to foster economic growth and development by promoting trade and investment in Zambia through an efficient, effective and coordinated private sector led economic development Strategy.</i>

Component	Applicable Legislative Instrument	Description of Legislative Instrument
	<ul style="list-style-type: none"> The Zambia Revenue Authority Act (No. 28 of 1993 and all amendments); 	The Acts provides for the taxation system in Zambia for various goods and services.
	<ul style="list-style-type: none"> Investment Act of 1998 	Provides a legal framework for investment in Zambia. The Act relates to the environment by encouraging investment that is not detriment to the environment.
	<ul style="list-style-type: none"> Standards Act, Cap 416 	Provides for the adherence to prescribed standards in all works.
Employment and Compensation	<ul style="list-style-type: none"> Citizens Economic Empowerment Act No 9 of 2006 	Provides for the encouragement and support of citizens of Zambia to get involved in business activities for wealth creation and support of livelihoods.
	<ul style="list-style-type: none"> The Employment Act Cap 268 	Provide for the employment of persons on contracts of service and for the form of and enforcement of contracts of service, appointment of officers of the Labour Department and for the conferring of powers on such officers and upon medical officers and protection of wages of employees as well as control of employment agencies.
	<ul style="list-style-type: none"> Compensation Act (No 10 of 1999) 	Provides for the establishment and administration of a Fund for the compensation of Workers disabled by accidents to, or diseases contracted by, such Workers in the course of their employment, and for the payment of compensation to dependants of Workers who die as a result of such accidents or diseases.

5.2.3 *Zambian Development Policies*

The national development policies for Zambia that are of applicability to this Project are briefly outlined below.

Zambia Vision 2030

Vision 2030 expresses Zambia's aspirations in respect of economic growth, good governance and developing its people. One key basic principle of Vision 2030 is sustainable development. The vision is supported by key goals to ensure that by the year 2030:

- Zambia's rural and urban population has universal access to clean, reliable and affordable energy by the use of alternative, renewable energy sources such as hydropower.
- There is an upgrade of existing and construction of new infrastructure by developing and implementing private- public partnerships with both local and international industries.
- Zambia's biodiversity is protected in numerous national parks and local forest reserves. There is maintenance of a productive environment and well conserved natural resources to facilitate sustainable socio-economic development.

- There is effective utilisation of fresh water resources for a variety of purposes whilst maintaining the quality of the source.

Sixth National Development Plan: 2011 – 2015

The Sixth National Development Plan (SNDP) aims to materialise the aspirations of the Vision 2030. The objectives of the SNDP are:

- infrastructure development;
- economic growth and diversification;
- rural investment; and
- poverty reduction and the enhancement of human development.

The SNDP contains sector plans that aim to assist in achieving these objectives. The sector plans most relevant to the Project and their objectives are summarised below.

Energy Sector Plan

- To increase electricity generation capacity by at least 1,000 MW and build appropriate transmission lines.
- To increase electrification levels in rural areas of Zambia to 15 %, particularly in the Central Province.
- To expand the use of renewable and alternative energy in the country's energy mix.
- To reduce greenhouse gas emissions from the energy sector and strengthen adaptation and resilience to climate change related stresses.

Water Sector Plan

- To achieve sustainable water resource development for social and economic development.
- To develop innovative approaches and appropriate technologies for the effective management of the nation's water resources.

Southern Province Regional Development Plan: 2011 - 2015

The Southern Province Regional Development Plan (as set out within the SNDP) provides for a variety of sector specific strategies and programmes to be achieved in the SNDP period. The objectives of some of these strategies and programmes applicable to the Project include:

- Infrastructure development for the movement of goods and services;
- Connecting rural areas to electricity power supply; and
- Expanding and improving infrastructure for electricity generation, transmission and distribution.

A national energy study was implemented by Chubu Electric Power Co., Inc. from November 2008 to February 2010, in order to formulate a countrywide power system development master plan. The study was undertaken cooperatively with the Zambian Ministry of Energy and Water Development.

The objectives of the study were to inform the Power System Development Master Plan until 2030, coordinating generation, transmission, and an interconnection plan for the stabilization of the power supply for Zambia and the southern African community. In addition to this, the study was intended to transfer technical skills.

5.2.4 *Treaties and Conventions to which Zambia is a Signatory*

Zambia is a signatory to a number of international conventions and agreements relating to industry, environmental management and energy. In certain cases these have influenced policy, guidelines and regulations. These conventions must be complied with during the planning, construction and operations phases of the proposed development.

Table 5.2 lists the relevant international conventions and protocols to which Zambia is a signatory.

Table 5.2 *Ratification of International Conventions*

Name of Convention	Date of enactment and status
<p><i>The Basel Convention on Trans-boundary Movement of Hazardous Waste</i> The Basel Convention governs the generation, collection, storage, transportation, pre-treatment, treatment, disposal, export, import and trans-boundary movement of hazardous waste.</p>	Zambia: 15/11/1994 (Accession)
<p><i>Bamako Convention on the ban on the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa</i> The Bamako Convention uses a format and language similar to that of the Basel Convention, but is much stronger in prohibiting all imports of hazardous waste. Additionally, it does not make exceptions on certain hazardous wastes (like those for radioactive materials) made by the Basel Convention.</p>	Zambia: 03/08/2005 (signed)
<p><i>The Convention Concerning the Protection of the World's Cultural and Natural Heritage</i> The Convention provides for the identification, protection, conservation, presentation and transmission to future generations of the cultural and natural heritage which are of outstanding universal value from the point of view of history, art or science.</p>	Zambia: 04/06/1984 (ratified)

Name of Convention	Date of enactment and status
<p>Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)</p> <p>CITES is an international agreement between governments to ensure that international trade in specimens of wild animals and plants does not threaten their survival.</p>	Zambia: 24/11/1980 (ratified)
<p>International Union for the Conservation of Nature and Natural Resources (IUCN)</p> <p>Encourages the preservation of wildlife, natural environments, and living resources and promotes research in the preservation of threatened species, ecology, sustainable development, and environmental law, education, and training.</p>	Zambia: member
<p>African Convention on the Conservation of Nature and Natural Resources</p> <p>Recognises the need to contribute to the conservation of nature and natural resources at a continent level.</p>	Zambia: signatory
<p>United Nation Convention to Combat Desertification (UNCCD)</p> <p>Recognises the need to control any form of desertification that may arise as a result of anthropogenic activities. The statutes of the UNCCD, encourages the control of desertification as a result of man's activities.</p>	Zambia: 19/09/1996 (ratified)
<p>United Nations Framework Convention on Climate Change (UNFCCC)</p> <p>UNFCCC is an international agreement for the control of climate change.</p>	Zambia: 28 May 1993 (ratified)
<p>The Kyoto Protocol to the United Nations Framework Convention on Climate Change (UNFCCC)</p> <p>An international treaty that sets binding obligations on industrialized countries to reduce emissions of greenhouse gases. The UNFCCC is an environmental treaty with the goal of preventing dangerous anthropogenic (i.e., human-induced) interference of the climate system.</p>	Zambia: 07/07/2006 (ratified)
<p>Convention concerning the Abolition of Forced Labour, 1957 (ILO)</p> <p>Cancels certain forms of forced labour still allowed under the Forced Labour Convention of 1930, such as punishment for strikes and as a punishment for holding certain political views.</p>	Zambia: 22/02/1965 (ratified)
<p>Convention concerning Discrimination in Respect of Employment and Occupation or Discrimination (Employment and Occupation) Convention (ILO)</p> <p>The convention requires states to enable legislation which prohibits all discrimination and exclusion on any basis including of race or colour, sex, religion, political opinion, national or social origin in employment and repeal legislation that is not based on equal opportunities.</p>	Zambia: 23/10/1979 (ratified)

Name of Convention	Date of enactment and status
<p><i>African Charter on Human and Peoples' Rights</i> Is an international human rights instrument that is intended to promote and protect human rights and basic freedoms in the African continent.</p>	Zambia: 10/01/1984 (ratified)
<p><i>Convention Concerning the Protection of Workers against Occupational Hazards in Working Environments due to Air Pollution and Noise Vibrations</i> Recognises the need to protect workers against hazards in working environments.</p>	Zambia: 19/08/1980 (ratified)
<p><i>Agreement on Co-operative Enforcement Operations directed at Illegal Trade in Wild Fauna and Flora</i> The objective of this Agreement is to reduce and ultimately eliminate illegal trade in wild fauna and flora and to establish a permanent Task Force for this purpose.</p>	Zambia: 9/11/1995 (ratified)
<p><i>Agreement on the Action Plan for the Environmentally Sound Management of the Common Zambezi River System</i> Is an agreement aiming to develop regional co-operation on environmentally sound water resources management of the common Zambezi river system and to strengthen regional co-operation for sustainable development.</p>	Zambia: 28/05/1987 (ratified)
<p><i>Constitution of the International Labour Organisation</i> A constitution detailing conditions and standards for acceptable labour practices.</p>	Zambia: (ratified)
<p><i>Convention on Biological Diversity</i> The Convention has three main objectives; the conservation of biological diversity, the sustainable use of the components of biological diversity and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources.</p>	Zambia: (ratified)
<p><i>Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar)</i> An international treaty for the conservation and sustainable utilization of wetlands. The treaty recognizes the fundamental ecological functions of wetlands and their economic, cultural, scientific, and recreational value.</p>	Zambia: (ratified)
<p><i>International Plant Protection Convention</i> Is an international agreement on plant health which aims to protect cultivated and wild plants by preventing the introduction and spread of pests.</p>	Zambia: (ratified)
<p><i>Statutes of the International Centre for the Study of the Preservation and restoration of Cultural Property</i> Intergovernmental organisation dedicated to the conservation of cultural heritage. It has a worldwide mandate to promote the conservation of all types of cultural heritage, both movable and immovable.</p>	Zambia: not a member

Name of Convention	Date of enactment and status
<p><i>Statutes of the International Union for Conservation of Nature and Natural Resources (as amended)</i></p> <p>Intergovernmental organisation with the objective to influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable.</p>	<p>Zambia: not a member</p>

5.3

ZIMBABWE

5.3.1

Zimbabwean Institutional Framework

Ministry of Environment, Water and Climate

The ministry with overall responsibility for environmental management in Zimbabwe is the Ministry of Environment, Water and Climate, formerly known as the Ministry of Environment and Natural Resource Management, and the Ministry of Mines, Environment and Tourism. As per the Zimbabwean Environmental Management Act (Chapter 20:27) the general functions of the Minister of Environment, Water and Climate are to:

- Regulate the management of the environment and promote, coordinate and monitor the protection of the environment and the control of pollution.
- Regulate the activities of all government agencies and other agencies in terms of their impact on the environment.
- Present to Parliament a report on the state of the environment every five years.
- Monitor the environment, trends in the utilisation of natural resources, and the impact of such utilisation on the environment.
- Coordinate the promotion of public awareness and education on environmental management.
- Ensure that persons and institutions responsible for causing environmental harm meet the cost of remedying that harm.
- Formulate policies for environmental management and facilitate their implementation.
- Recommend to the government which international and regional conventions and treaties on the environment Zimbabwe should become a party to, and secure their incorporation into domestic law.

Environmental management is regulated by three related agencies in the Ministry of Environment, Water and Climate; namely the National Environmental Council (NEC), the Environmental Management Agency (EMA) and the Environmental Management Board (EMB).

National Environmental Council (NEC)

The functions of the NEC are as follows:

- Give advice on policy formulation and provide directions on the implementation of the Zimbabwean EMA.
- Give advice on national goals and objectives for the protection of the environment.
- Promote cooperation among public departments, local authorities, the private sector, non-governmental organisations and other organisations that deal with environmental issues.
- Review and recommend to the Minister guidelines for environmental management plans and environmental action plans.
- Review national environmental policies, plans and strategies.

Environmental Management Agency

The Environmental Management Act of 2002 (Chapter 20:27) provides for the establishment of the Zimbabwean Environmental Management Agency (EMA), formerly known as the Department for Natural Resources. The Agency is responsible for:

- Formulating quality standards on air, water, soil, noise, vibration, radiation and waste management;
- Assisting and participating in any matters pertaining to the management of the environment, such as:
 - Developing guidelines for National Plans, environmental management plans and local environmental action plans;
 - Regulating and monitoring the collection, disposal, treatment and recycling of waste;
 - Monitoring and regulating the discharge or emission of pollutants or hazardous substances into the environment;
 - Keeping records in the form of registers of all licences and permits issued under the law;

- Monitoring and regulating the control of invasive alien species;
- Regulating, monitoring, reviewing and approving EIAs;
- Regulating and monitoring the management and utilisation of ecologically fragile ecosystems;
- Making bylaws within the jurisdiction of local authorities;
- Advising government on conventions and treaties that should be incorporated into national law;
- Coordinating the production of a five-year environmental report;
- Developing and implementing incentives for the protection of the environment;
- Carrying out periodic environmental audits of any projects, including projects whose implementation started before a fixed date, to ensure that their implementation complies with the requirements of the Act;
- Regulating and monitoring access by any person to biological and genetic resources; and
- Making recommendations to the Minister on the formulation of any regulations.

Environment Management Board

The Zimbabwean EMA is controlled and managed by the Environment Management Board (EMB), which is composed of experts from the areas of environmental planning and management, environmental economics, ecology, pollution, waste management, soil science, hazardous substances, water and sanitation. In addition, there is a legal representative and a secretary to the Ministry responsible for the environment.

Department of Water

The Department of Water within the Ministry is responsible for the oversight of the water sector. The functions of the Ministry include:

- Formulate and implement sustainable policies on the development, utilization and management of water resources in cooperation with user communities and institutions.
- Design, construct and maintain medium to large size dams and water supplies to satisfy present and future domestic, industrial and mining water requirements.

- Provide clear/treated water for urban areas in consultation with the Ministry of Local Government, Public Works and Urban Development.
- Design, construct and maintain dams, weirs and boreholes to meet present and future irrigation requirements.
- Take responsibility for the overall/national planning, management, regulation and standardisation of irrigation development and adoption of appropriate technology.
- Design, construct, maintain and manage irrigation schemes and projects.
- Develop sustainable underground water resources in consultation with the Ministry of Rural Housing and Social Amenities.
- Manage the water resources of the country (water in rivers, dams and ground water).
- Set tariffs for raw water, treated water and irrigation water in consultation with other line ministries, consumers and stakeholders.
- Manage and administer the Water Fund through the Zimbabwe National Water Authority.
- Administer the District Development Fund.
- Administer the Rural Capital Development Fund.
- Participate in the development and implementation of SADC and other regional and international organisations' water resources management frameworks.

The Zimbabwe National Water Authority (ZINWA)

ZINWA is a parastatal, which acts as an operator and a regulator. ZINWA is responsible for the following functions at the national level:

- Water planning and implementation;
- Management of public dams;
- Supply of bulk water to the agriculture, industrial and mining sectors;
- Supply of bulk water to urban centres; and
- Coordination and supervision of the seven catchment councils.

ZINWA is responsible for water supply to urban centres, while the municipalities supply water to smaller urban settlements. Rural water supply and sanitation is coordinated by the National Action Committee for Water and Sanitation, which is an inter-ministerial committee chaired by the Minister of Local Government. Separating rural and urban domestic water supply into

different ministries was identified by SADC (2003a) as leading to the rural water supply perspectives being isolated from the national water program.

The seven Catchment Councils (Gwayi, Manyame, Save, Runde, Mazowe, Sanyati and Mzingwane) established under the Zimbabwe National Water Authority Act are responsible for all aspects of water management within their responsive catchment areas. The Catchment Managers are employees of ZINWA, and not employed by the Catchment Council, which hinders the devolution of authority. Sub-Catchment Councils are under Catchment Councils and Water User Boards are the lowest tier.

Ministry of Energy and Power Development

The Ministry is the administering authority in regards to energy and power development in Zimbabwe. The Ministry comprises the following departments:

- Petroleum;
- Power Development;
- Policy And Planning;
- Energy Conservation and Renewable Energy;
- Finance Human Resources and Administration;
- Legal Services; and
- Internal Audit.

The Power Development Department

The Power Development Department is one of the technical departments of the Ministry. Its main role is to facilitate the improvement of availability of electricity to the populace, as well as the attainment of self-sufficiency in electricity generation. The achievement of the strategic goals is centred on the effective administration of the utilities under the Department's purview namely ZESA Holdings (Pvt) Ltd and its subsidiaries: Zimbabwe Power Company (ZPC), Zimbabwe Electricity Transmission and Distribution Company (ZETDC), ZESA Enterprises (ZENT); the Rural Electrification Agency (REA); Zimbabwe Electricity Regulatory Commission (ZERC) and Zambezi River Authority (ZRA) which is a bilateral body owned by Zimbabwe and Zambia.

The Zimbabwe Energy Regulatory Authority (ZERA)

ZERA was created in September 2011 following the promulgation of the Energy Regulatory Act (Chapter 13:23). Its primary mandate is to regulate the Energy Sector in Zimbabwe. The functions of ZERA include:

- Regulatory and Licensing:
 - To regulate the procurement, production, transportation, transmission, distribution, importation and exportation of energy derived from any energy source;

- To exercise licensing and regulatory functions in respect of the energy industry;
- To ensure that prices charged by licensees are fair to consumers in the light of the need for prices to be sufficient to allow licensees to finance their activities and obtain reasonable earnings for their efficient operation;
- To establish or approve operating codes for safety, security, reliability, quality standards and any other sector related codes and standards for the energy industry or any sector thereof;
- To maintain and promote effective competition within the energy industry.
- Research and development:
 - To promote and encourage the expansion of the energy industry and the advancement of technology relating thereto;
 - To promote, identify and encourage the employment and development of sources of renewable energy;
 - To undertake such other thing which it considers is necessary or convenient for the better carrying out of or giving effect to the functions of the Authority.
- To increase access and security of supply:
 - To promote the procurement, production, transportation, transmission and distribution of energy in accordance with public demand and recognised international standards;
 - To ensure the maximisation of access to energy by all consumers that is affordable and environmentally sustainable;
 - To create, promote and preserve an efficient energy industry market for the provision of sufficient energy for domestic and industrial use;
 - To promote coordination and integration in the importation, exportation and pooling of energy from any energy source in the SADC and COMESA region;
- Energy efficiency and environmental protection:
 - To advise and educate consumers and licensees regarding the efficient use of energy;

- To assess, promote studies of and advise the Minister and licensees on the environmental impact of energy projects before licensing;
- Key stakeholder advisory role:
 - To advise the Minister on all matters relating to the energy industry;
 - To establish appropriate consumer rights and obligations regarding the provision of energy services;
 - To arbitrate and mediate disputes among and between licensees and consumers;
 - To represent Zimbabwe internationally in matters relating to the energy industry.

National Museums and Monuments of Zimbabwe (NMMZ)

NMMZ is Zimbabwe's premier heritage organization established under the National Museums and Monuments of Rhodesia Act, 1972 which is now called the National Museums and Monuments Act (Chapter 25:11). NMMZ is a Parastatal, funded through grant by Central Government and falling under the Ministry of Home Affairs. The Act established a Board of Trustees to provide for the establishment and administration of museums' and to provide for the preservation of ancient, historical and natural monuments, relics and other objects of historical or scientific value or interest.

The NMMZ is granted authority over all sites and structures of cultural, specified scientific, historical, archaeological and palaeontological significance. They set standards for reporting, evaluation and notification and should be consulted in advance of the implementation of any archaeological fieldwork undertaken in mitigation of the Batoka proposals.

Other Line Ministries:

Due to the cross-sector impacts of the Project other Ministries and Agencies are also of relevance, such as:

- Ministry of Lands and Rural Resettlement
- Ministry of Industry and Commerce;
- Ministry of Health and Child Care;
- Ministry of Local Government, public Works and National Housing;
- Ministry of Lands and Rural Settlement;
- Ministry of Agriculture, Mechanisation & Irrigation Development;
- Ministry of Local Government Rural and Urban Development;
- Ministry of Public Works; and
- Ministry of Public Service, Labour and Social Welfare.

5.3.2 *Zimbabwean Environmental and Social Laws and Regulations*

The Environmental Management Act (the Act) (Chapter 20:27), No. 13 of 2002

The Zimbabwean Environmental Management Act (the Act) (Chapter 20:27), No. 13 of 2002, was enacted in 2002 as amended on March 25, 2006 and April 17, 2011. It aims to 'provide for the sustainable management of natural resources and protection of the environment; [and] the prevention of pollution and environmental degradation'.

The Act also provides for the establishment of EMA and an Environmental Fund. The Act repeals the following former Acts:

- Natural Resources Act (Chapter 20:13);
- Atmospheric Pollution Prevention Act (Chapter 20:03);
- Hazardous Substances and Articles Act (Chapter 15:05); and
- Noxious Weeds Act (Chapter 19:07).

The Act is a general legislative framework and does not cover every environmental aspect. It is a framework law which will be complemented by other laws and policies that are not in conflict with it. However, where there are conflicts, this Act will take precedence. The law will be supported by the setting up of the proposed institutions and the promulgation of Regulations by the Minister. Nevertheless, the Act provides the general environmental principles that should be followed in environmental management.

The provisions of the Zimbabwean EMA that relate to EIAs in particular are set out in Section 97 of the Act and summarised below:

- A person who proposes to embark on any of the projects listed in the First Schedule is expected to submit an EIA report to the Director-General.
- The developer can only embark on the project if s/he has obtained a certificate from the Director-General.
- The developer is expected to submit a prospectus to the Director-General with information on the assessment and the project.
- It is an offence for any person to knowingly implement a project without a certificate showing that an EIA has been carried out and approved.

Some of the activities, landuse changes and sectors in which EIAs should be carried out include:

Activities

- Dams and man-made lakes;
- Drainage and irrigation;
- Housing developments;
- Tourist resorts and recreational developments;

- Waste treatment and disposal;
- Water supply.

Landuse Changes

- Conversion of forest land into other use;
- Conversion of natural woodland to other use within the catchment area of reservoirs used for water supply, irrigation or hydropower generation or in areas adjacent to parks and wildlife estates.

Sectors

- Industry and Manufacturing;
- Mining and quarrying;
- Petroleum production, storage and distribution;
- Power generation and transmission.

Environmental Management (Environmental Impact Assessments and Ecosystems Protection) Regulations, SI No. 7 of 2007

The Environmental Management (Environmental Impact Assessments and Ecosystems Protection) Regulations (EIA Regulations) deal with the regulation of the EIA process and the protection of ecosystems. Part 11 of the Act stipulates that no industrial project shall be implemented without an EIA having been done. These Regulations provide the methodology for undertaking the EIA. The developer has to submit a prospectus to the EMA (see section 16.4.1), which will issue a licence if satisfied by the contents of the prospectus. The prospectus has to contain details of the environmental impacts of the project and the measures to be taken to contain or mitigate such impacts. In preparing an EIA, a developer is obliged to consult widely with all stakeholders. The EMA will not issue a licence if it is not satisfied that the developer consulted with all stakeholders in the preparation of the prospectus. It should also be noted that projects that began before the Act was promulgated are subject to periodic environmental audits by the EMA.

Section 10 (4 to 7) of the EIA Regulations state the following:

- Before any EIA report is furnished to the Director-General, the developer shall carry out wide consultations with stakeholders.
- During review of the prospectus and EIA report, the Director-General shall verify whether full stakeholder participation was undertaken when the EIA report was prepared. ⁽¹⁾
- Expenses associated with the stakeholder consultation process should be borne by the developer.

(1) Note: Proof of stakeholder consultation must be included in the EIA report (these include letters confirming public consultation from relevant Government Agencies). Obtaining proof of consultation from the relevant Government Agencies can be time consuming (and in some cases these Agencies request payment).

- The Director-General may advertise in the print and electronic media when a prospectus or EIA report is being reviewed.

Regrettably, the Regulations neither provide specifically for the manner in which the consultation of stakeholders should be carried out nor do they stipulate the stakeholders. There is also no measure to ensure that the concerns of the stakeholders are incorporated in the prospectus.

Environmental Impact Assessment Guidelines (1997)

In 1997, the then Ministry of Mines, Environment and Tourism published the Environmental Impact Assessment Policy. The goal of the policy is to encourage environmentally responsible investment and development in Zimbabwe. The policy views the EIA process as key to achieving this goal.

To support the 1997 Environmental Impact Assessment Policy, the Ministry of published EIA Guidelines to facilitate the implementation of the EIA process. These guidelines are presented as 10 Volumes.

Volume 1 provides guidance on the EIA Policy and General Guidelines under the following topics:

- Administering the EIA Policy;
- Preparing Terms of Reference (ToR's);
- Preparing EIA Reports;
- Consulting the Public ⁽¹⁾;
- Environmental Management; and
- Evaluating the adequacy of EIA Reports.

In terms of consulting the public, Section 5 provides guidelines for the stakeholder consultation programme.

Volumes 2 to 10 provide guidance on sector-specific EIAs and cover the following sectors:

- Mining and quarrying
- Forestry
- Agriculture
- Transport
- Energy
- Water
- Urban infrastructure
- Tourism.

(1) According to the Environmental Impact Assessment Policy, public consultation is an integral component of the EIA Policy, and includes three principal elements:

- Proponents are required to conduct public participation during the preparation of EIA reports;
- During the review of draft EIA reports, the Natural Resources Board may conduct public meetings on an activity where warranted; and
- EIA documents will be available for public review and comment.

For each of these sectors, the guidelines provide examples of major activities that are likely to be undertaken for projects in that sector, the type of environmental impacts, possible measures for managing such impacts, sample Terms of Reference, and sources of information for use in an EIA study.

In addition, the guidelines are supported by various appendices which provide guidance on preparing ToR's, EIA methods, sources of information, etc.

The guidelines are used by Government authorities, developers and EIA practitioners as they provide valuable assistance with carrying out EIAs, guidance on the review of EIAs and the implementation of the EIA recommendations. In addition, the guidelines contribute to improving the quality of sector-specific EIAs.

Other Relevant Environmental and Social Legislation in Zimbabwe

Environmental issues cut across a wide variety of sectors, and as such there are numerous pieces of legislation in Zimbabwe which have a bearing on the environment and should be considered in ESIA decision-making.

Table 5.3 presents a summary of the most relevant Zimbabwean national legislation which may be applicable to the Project.

Table 5.3 Summary of Relevant Zimbabwean Environmental and Social Legislation

Component	Applicable Legislative Instrument	Description of Legislative Instrument
Environmental		
Water Resources	<ul style="list-style-type: none"> Water Act, 2003 (Chapter 20:24) 	This Act updates the Water Act, No. 31 of 1998. It stipulates that the National Water Authority and Catchment Councils shall prepare an Outline Water Development Plan for each river system. The Act makes provision for the formation of Catchment Councils, which shall issue water use permits in terms of the Act. Such permits are valid for a period of 20 years unless otherwise stated by the relevant Catchment Council.
	<ul style="list-style-type: none"> Zimbabwe National Water Authority Act, 1998 (Chapter 20:25) 	Establishes the Zimbabwe National Water Authority and to provide for its functions. Provides for the appointment and functions of a board of the Authority and for the raising of charges for the provision of water and other services by the Authority. In addition, the Act provides for the funds of the Authority and the imposition and collection of a water levy. The Act also repealed the Regional Water Authority Act.
Wildlife and Natural Resources	<ul style="list-style-type: none"> Forest Act, 1948 (Chapter 19:05) 	Provides for demarcating forests and nature reserves, conserving timber resources, regulating trade in forest produce, and regulating the burning of vegetation.
	<ul style="list-style-type: none"> Parks and Wildlife 	Provides for the establishment of national parks,

Component	Applicable Legislative Instrument	Description of Legislative Instrument
	<i>Conservation Act, 1975 (Chapter 20:14)</i>	<i>botanical reserves and gardens, sanctuaries, safari areas and recreational parks; provides for the conservation and control of wildlife, fish and plants; and designates specially protected animals and indigenous plants.</i>
	<ul style="list-style-type: none"> <i>Communal Land and Forest Produce Act, 1988 (Chapter 19:04)</i> 	<i>Controls the use of wood resources within communal lands. Such resources are only for the domestic use of the residents.</i>
Air	<ul style="list-style-type: none"> <i>Air Pollution Control Regulations SI 72, 2009.</i> 	<i>Provides for prevention, control and abatement of air pollution to ensure clean and healthy ambient air. It provides for the establishment of emission standards for various sources such as mobile sources (e.g. motor vehicles) and stationary sources (e.g. industries) as outlined in the Air Pollution Control Regulations SI 72, 2009. It also covers any other air pollution source as may be determined by the Minister in consultation with the Environmental Management Agency.</i>
Waste	<ul style="list-style-type: none"> <i>Effluent and Solid Waste Disposal Regulations SI 6, 2007.</i> 	<i>Regulates the disposal of waste (solid waste and effluent). Implements the polluter pays principle through licensing which is according to four classes.</i>
	<ul style="list-style-type: none"> <i>Hazardous Waste Management Regulations SI 10, 2007</i> 	<i>Provides for the licensing for generation, storage, use, recycling, treatment, transportation or disposal of hazardous waste. Generators of hazardous waste are also required to prepare waste management plans and targets. Regulates waste collection and management by local authorities. In addition, regulates the importation and exportation of hazardous waste and waste oils.</i>
Explosives	<ul style="list-style-type: none"> <i>Explosives Act (Chapter 10:08)</i> 	<i>An Act to make further and different provision for regulating and controlling the possession, purchase, acquisition, delivery, manufacture, storage, use, conveyance and handling of explosives; and to provide for matters connected with or incidental to the foregoing.</i>
Hazardous Substances, Pesticides and Toxic Substances	<ul style="list-style-type: none"> <i>Statutory Instrument No. 12 of 2007</i> 	<i>Provides for registration fees for manufacturers, importers, storage and users of hazardous substances per facility: manufacturer, importer, seller of hazardous substances</i>
Energy		
Energy	<ul style="list-style-type: none"> <i>Electricity Act (Ch 13:19)</i> 	<i>Provides for the establishment of the Zimbabwe Electricity Regulatory Commission and provides for its functions and management. Also provides for the licensing and regulation of the generation, transmission, distribution and supply of electricity.</i>
	<ul style="list-style-type: none"> <i>Energy Regulatory Act (Chapter 13:23)</i> 	<i>Provides for the creation of the Zimbabwe Energy Regulatory Authority (ZERA) and regulates the energy sector and other sections not provided for by the energy laws, the Electricity Act (13:19) and Petroleum Act (13:22). The Energy Regulatory Act repealed some sections especially those related to the formation of the regulatory institutions in the Electricity Act (Chapter 13:19) and Petroleum Act (Chapter 13:22). The mandate of ZERA is to regulate the Energy Sector in Zimbabwe.</i>
Socioeconomic, Archeology and Cultural Heritage		

Component	Applicable Legislative Instrument	Description of Legislative Instrument
Health	<ul style="list-style-type: none"> Public Health Act (Ch 15:09) 	Provides for the establishment of the Zimbabwean public health system.
	<ul style="list-style-type: none"> Plant Pests and Diseases Act, 1959 (Chapter 19:08) 	The Act provides for the eradication and prevention of the spread of plant pests and diseases.
Archaeological, Historical and Cultural	<ul style="list-style-type: none"> National Museums and Monuments Act (Chapter 25:11) 	<p>Zimbabwean legal requirements for the protection of cultural heritage is set out in the National Museums and Monuments of Zimbabwe (NMMZ) Act Chapter 25 (11), supported by various Statutory Instruments. The most recent additional legislation, Statutory Instrument 143 of 2011, must be read in conjunction with the institutional recommendations contained in a 1998 NMMZ publication entitled 'Archaeological Impact Assessments: Guidelines for Planning Authorities and Developers'.</p> <p>The Act established a board of trustees to administer museums and monuments in Zimbabwe; to provide for the establishment and administration of museums; to provide for the preservation of ancient, historical and natural monuments, relics and other objects of historical or scientific value or interest; to provide for the payment of pensions and other benefits to members of the staff of the board of trustees; and to provide for matters incidental to or connected with the foregoing.</p>
Land use planning issues	<ul style="list-style-type: none"> Communal Land Act (Chapter 20:04) 	Provides for the classification of land in Zimbabwe as Communal Land and for the alteration of such classification; to alter and regulate the occupation and use of Communal Land; and to provide for matters incidental to or connected with the foregoing.
	<ul style="list-style-type: none"> Rural District Councils Act, 1989 (Chapter 29:13) 	Provides for the establishment of Rural District Councils responsible for initiating and regulating development in rural areas.
	<ul style="list-style-type: none"> Regional Town and Country Planning Act [Chapter 29:12] 	Regulates regional planning and provides for the functions of Regional Planning Councils. The Act confers the land-use planning function on urban local authorities and regulates the development of master and local plans; subdivisions, consolidation, acquisition and disposal of land.
	<ul style="list-style-type: none"> Roads Act (Chapter 13:18) 	Provides for the regulation of the standards applicable in the planning, design, construction, maintenance and rehabilitation of roads with due regard to safety and environmental considerations. Provides for road authorities and their functions and for the regulation of the erection of structures or the carrying out of works near certain roads, the entry upon roads from certain land and the acquisition of land and materials for road works.
	<ul style="list-style-type: none"> Traditional Leaders Act (Chapter 29:17) 	An Act to provide for the appointment of village heads, headmen and chiefs; to provide for the establishment of a Council of Chiefs and village, ward and provincial assemblies and to define their functions; to provide for the issue of village registration certificates and settlement permits. The Act also provides for the repeal of the Chiefs and Headmen Act (Chapter 29:01) and amends: the

Component	Applicable Legislative Instrument	Description of Legislative Instrument
		<i>Criminal Procedure and Evidence Act (Chapter 9:07); the Communal Land Act (Chapter 20:04); and the Rural District Councils Act (Chapter 29:13).</i>
	<ul style="list-style-type: none"> • <i>Rural Land Act (Chapter 20:18)</i> 	<i>An Act to provide for the acquisition of State land and the disposal of State land; to provide for the control of the subdivision and lease of land for farming or other purposes; to provide for limiting of the number of pieces of land that may be owned by any person and the sizes of such land, and for prohibiting or restricting the rights of non-residents to own, lease or occupy land in Zimbabwe, and to provide for other matters incidental to and connected with the foregoing.</i>
	<ul style="list-style-type: none"> • <i>Rural Land Occupiers (Chapter 20:26) (Protection from Eviction) Act 2002</i> 	<i>Provides for the protection of certain occupiers of rural land from eviction, and regulates matters connected therewith or incidental thereto.</i>
Mining Regulations		
Quarries and Borrow Pits	<ul style="list-style-type: none"> • <i>Mines and Minerals Act 1961 (Chapter 21:05)</i> 	<i>Regulates the acquisition of mining rights, prospecting for and extraction of minerals, and decommissioning of mining works.</i>
	<ul style="list-style-type: none"> • <i>Statutory Instrument No. 7 of 2007</i> 	<i>Prohibits extraction, possession, transportation of sand and clay deposits for commercial purposes without a licence issued by the Agency. This Statutory Instrument also provides for prevention of veld fires, protection of wetlands and public streams.</i>
Investments, Energy Regulation, and Development		
Tourism	<ul style="list-style-type: none"> • <i>Tourism Act (Chapter 14:20)</i> 	<i>An Act to establish a Zimbabwe Tourism Authority and to provide for its functions; the appointment and functions of a board of the Authority; to establish a Zimbabwe Tourism Fund; the appointment of a Chief Executive of the Authority, licensing officers and other officers; the designation, registration and grading of tourist facilities and for the licensing of persons who provide services connected with tourism; the imposition and collection of levies in respect of designated tourist facilities; and matters connected with or incidental to the foregoing.</i>
Employment and Compensation	<ul style="list-style-type: none"> • <i>Labour Act (Chapter 28:01) as amended by Labour Act [Chapter 28:01] amended 2006 and the Labour Amendment Act, 2005 (Act 7/2005)</i> 	<i>An Act to declare and define the fundamental rights of employees; to give effect to the international obligations of the Republic of Zimbabwe as a member state of the International Labour Organisation.</i>
Others		
Immigration	<i>Immigration Act (Chapter 4:02)</i>	<i>Regulates cross-border movement into and out of Zimbabwe.</i>

5.3.3 *Zimbabwean Development Policies*

The national development policies for Zimbabwe that potentially applicable to the Project are briefly outlined below.

Zimbabwe Agenda for Sustainable Socio-economic Transformation

In pursuit of a new trajectory of accelerated economic growth and wealth creation, Government has formulated a new plan known as the Zimbabwe Agenda for Sustainable Socio-Economic Transformation (Zim Asset): October 2013-December 2018.

Zim Asset was crafted to achieve sustainable development and social equity anchored on indigenisation, empowerment and employment creation which will be largely propelled by the judicious exploitation of the country's abundant human and natural resources.

This Results Based Agenda is built around four strategic clusters that will enable Zimbabwe to achieve economic growth and reposition the country as one of the strongest economies in the region and Africa. The four strategic clusters identified are: Food Security and Nutrition; Social Services and Poverty Eradication; Infrastructure and Utilities; and Value Addition and Beneficiation ⁽¹⁾.

Zimbabwean Industrial Development Policy (2012-2016)

The policy's vision is to transform Zimbabwe from a producer of primary goods into a producer of processed value-added goods for both the domestic and export market. The policy mission statement is to create a vibrant, self-sustaining and competitive economy through promotion of viable industrial and commercial sectors as well as domestic and international trade.

The objectives of the policy include:

- The overall objective is to restore the manufacturing sector's contribution to the GDP of Zimbabwe from the current 15 % to 30 % and its contribution to exports from 26 % to 50 % by 2015. An average real GDP growth of 15 % is targeted under this Policy Framework of 2011-2015.
- To create additional employment in the manufacturing sector on an incremental basis as compared to the previous planning period of 2004 to 2010.
- To increase capacity utilisation from the current levels of around 43 % to 100 % by the end of the planning period.
- To re-equip and replace obsolete machinery and new technologies for import substitution and enhanced value addition.
- To increase the manufactured exports to the SADC and COMESA regions and the rest of the world.

(1) <http://www.un.int/wcm/webdav/site/zimbabwe/shared/documents/press/Zim-Asset.pdf>

- To promote utilisation of available local raw materials in the production of goods.

Zimbabwe's National Energy Policy

The National Energy Policy (NEP) seeks to promote the optimal supply and utilisation of energy, for socio-economic development in a safe, sustainable and environmentally friendly manner.

The NEP is intended to fulfil Government's objective of ensuring that the energy sector's potential to drive economic growth and reduce poverty is fully harnessed. The policy therefore provides a guide to decision-makers, policy-makers and development managers in Government, the private sector, Non-Governmental Organisations and civil society, on Government's intended actions in the energy sector.

The policy recognises that regional cooperation is essential for the development of large-scale hydropower resources and that small-scale hydropower projects may not make a significant impact on national requirements but they help to develop skills and to speed up access for remote communities that are not likely to be connected to the national grid in the foreseeable future.

The policy also makes specific reference to the Zimbabwe Energy Regulatory Authority (ZERA) and states that the Authority is expected to create an enabling environment and establish fair play in the energy sector through licensing regulations, product and service standards and investment promotion.

5.3.4 *Treaties and Conventions to which Zimbabwe is a Signatory*

Zimbabwe is a signatory to a number of international conventions and agreements relating to industry, environmental management and energy. In certain cases these have influenced policy, guidelines and regulations. These conventions must be complied with during the planning, construction and operations phases of the proposed development.

Table 5.4 lists the relevant international conventions and protocols to which Zimbabwe is a signatory.

Table 5.4 *Ratification of International Conventions*

Name of Convention	Date of enactment and status
<p><i>The Basel Convention on Trans-boundary Movement of Hazardous Waste</i> The Basel Convention governs the generation, collection, storage, transportation, pre-treatment, treatment, disposal, export, import and trans-boundary movement of hazardous waste.</p>	<p>Zimbabwe: 01/03/2012 (Accession)</p>

Name of Convention	Date of enactment and status
<p><i>Bamako Convention on the ban on the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa</i></p> <p>The Bamako Convention uses a format and language similar to that of the Basel Convention, but is much stronger in prohibiting all imports of hazardous waste. Additionally, it does not make exceptions on certain hazardous wastes (like those for radioactive materials) made by the Basel Convention.</p>	Zimbabwe: 10/07/1992 (ratified)
<p><i>The Convention Concerning the Protection of the World's Cultural and Natural Heritage</i></p> <p>The Convention provides for the identification, protection, conservation, presentation and transmission to future generations of the cultural and natural heritage which are of outstanding universal value from the point of view of history, art or science.</p>	Zimbabwe: 16/08/1982 (ratified)
<p><i>Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)</i></p> <p>CITES is an international agreement between governments to ensure that international trade in specimens of wild animals and plants does not threaten their survival.</p>	Zimbabwe: 19/05/1981 (ratified)
<p><i>International Union for the Conservation of Nature and Natural Resources (IUCN)</i></p> <p>Encourages the preservation of wildlife, natural environments, and living resources and promotes research in the preservation of threatened species, ecology, sustainable development, and environmental law, education, and training.</p>	Zimbabwe: member
<p><i>African Convention on the Conservation of Nature and Natural Resources</i></p> <p>Recognises the need to contribute to the conservation of nature and natural resources at a continent level.</p>	Zimbabwe: signatory
<p><i>United Nation Convention to Combat Desertification (UNCCD)</i></p> <p>Recognises the need to control any form of desertification that may arise as a result of anthropogenic activities. The statutes of the UNCCD, encourages the control of desertification as a result of man's activities.</p>	Zimbabwe: 1997 (ratified)
<p><i>United Nations Framework Convention on Climate Change (UNFCCC)</i></p> <p>UNFCCC is an international agreement for the control of climate change.</p>	Zimbabwe: 3/10/1992 (ratified)

Name of Convention	Date of enactment and status
<p><i>The Kyoto Protocol to the United Nations Framework Convention on Climate Change (UNFCCC)</i></p> <p>An international treaty that sets binding obligations on industrialized countries to reduce emissions of greenhouse gases. The UNFCCC is an environmental treaty with the goal of preventing dangerous anthropogenic (i.e., human-induced) interference of the climate system.</p>	<p>Zimbabwe: 30/06/2009 (ratified)</p>
<p><i>Convention concerning the Abolition of Forced Labour, 1957 (ILO)</i></p> <p>Cancels certain forms of forced labour still allowed under the Forced Labour Convention of 1930, such as punishment for strikes and as a punishment for holding certain political views.</p>	<p>Zimbabwe: 27/08/1998 (ratified)</p>
<p><i>Convention concerning Discrimination in Respect of Employment and Occupation or Discrimination (Employment and Occupation) Convention (ILO)</i></p> <p>The convention requires states to enable legislation which prohibits all discrimination and exclusion on any basis including of race or colour, sex, religion, political opinion, national or social origin in employment and repeal legislation that is not based on equal opportunities.</p>	<p>Zimbabwe: 23/06/1999 (ratified)</p>
<p><i>African Charter on Human and Peoples' Rights</i></p> <p>Is an international human rights instrument that is intended to promote and protect human rights and basic freedoms in the African continent.</p>	<p>Zimbabwe: 30/05/1986 (ratified)</p>
<p><i>Convention Concerning the Protection of Workers against Occupational Hazards in Working Environments due to Air Pollution and Noise Vibrations</i></p> <p>Recognises the need to protect workers against hazards in working environments.</p>	<p>Zimbabwe: not a member</p>
<p><i>Agreement on Co-operative Enforcement Operations directed at Illegal Trade in Wild Fauna and Flora</i></p> <p>The objective of this Agreement is to reduce and ultimately eliminate illegal trade in wild fauna and flora and to establish a permanent Task Force for this purpose.</p>	<p>Zimbabwe: not a member</p>
<p><i>Agreement on the Action Plan for the Environmentally Sound Management of the Common Zambezi River System</i></p> <p>Is an agreement aiming to develop regional co-operation on environmentally sound water resources management of the common Zambezi river system and to strengthen regional co-operation for sustainable development.</p>	<p>Zimbabwe: 28/05/1987 (ratified)</p>
<p><i>Constitution of the International Labour Organisation</i></p> <p>A constitution detailing conditions and standards for acceptable labour practices.</p>	<p>Zimbabwe: (ratified)</p>

Name of Convention	Date of enactment and status
<p><i>Convention on Biological Diversity</i> The Convention has three main objectives; the conservation of biological diversity, the sustainable use of the components of biological diversity and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources.</p>	<p><i>Zimbabwe: (ratified)</i></p>
<p><i>Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar)</i> An international treaty for the conservation and sustainable utilization of wetlands. The treaty recognizes the fundamental ecological functions of wetlands and their economic, cultural, scientific, and recreational value.</p>	<p><i>Zimbabwe: (ratified)</i></p>
<p><i>International Plant Protection Convection</i> Is an international agreement on plant health which aims to protect cultivated and wild plants by preventing the introduction and spread of pests.</p>	<p><i>Zimbabwe: not a member</i></p>
<p><i>Statutes of the International Centre for the Study of the Preservation and restoration of Cultural Property</i> Intergovernmental organisation dedicated to the conservation of cultural heritage. It has a worldwide mandate to promote the conservation of all types of cultural heritage, both movable and immovable.</p>	<p><i>Zimbabwe: ratified</i></p>
<p><i>Statutes of the International Union for Conservation of Nature and Natural Resources (as amended)</i> Intergovernmental organisation with the objective to influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable.</p>	<p><i>Zimbabwe: ratified</i></p>

5.4

ZAMBEZI RIVER AUTHORITY

The Zambezi River Authority (ZRA) is mandated by the governments of Zambia and Zimbabwe to operate and maintain the infrastructure on the Zambezi River.

The ZRA is a statutory body jointly owned by the governments of Zambia and Zimbabwe. The ZRA was established on 1 October 1987 as a result of parallel legislation tabled before the parliaments of the Republics of Zambia and Zimbabwe, which followed the reconstitution of its predecessor, the Central African Power Corporation (CAPCO). Generating assets on the Zambezi River were subsequently handed over to the two national power utilities, the then Zambia Electricity Supply Corporation, now ZESCO Limited (ZESCO) and the then Zimbabwe Electricity Supply Authority now represented by Zimbabwe Power Company (ZPC). The ZRA has responsibility of the operation and maintenance of infrastructure on the Zambezi River, investigation and

development of new dam sites on the Zambezi River and collecting, processing, analysing and disseminating hydrological and environmental information pertaining to the Zambezi River and Lake Kariba.

The ZRA is governed by a Council of Ministers consisting of four members from Zambia and Zimbabwe. The common Ministries in the council are those responsible for Energy and Finance. In terms of the Zambezi River Authority Acts, the Council of Ministers gives direction, through the ZRA Board of Directors, to the ZRA to ensure the most efficient use of the Zambezi River and any other infrastructure developed on it.

The ZRA has the following four main strategic functions, which are outlined in the schedule to the Zambezi River Authority Acts Nos. 17 and 19 of 1987 of Zambia and Zimbabwe, respectively:

1. *In consultation with the national electricity undertakings investigate the desirability of constructing new dams on the Zambezi River and make recommendations thereon to the Council;*
2. *Subject to the approval of the Council, construct, operate, monitor and maintain any other dams on the Zambezi River;*
3. *Make such recommendations to the Council as will ensure the effective and efficient use of waters and other resources of the Zambezi River; and,*
4. *Submit development plans and programmes to the Council for approval.'*

5.5

INTERNATIONAL AND REGIONAL GUIDELINES AND STANDARDS

There a number of international environmental and social guidelines and standards applicable to the Batoka HES Project, especially with regards to International Finance Institutions (IFIs). These include the following:

- World Bank Safeguard Policies;
- The International Finance Corporation (IFC) Performance Standards;
- World Commission on Dams (WCD) Guidelines and Recommendations; and
- The International Hydropower Association (IHA) Sustainability Guidelines and Sustainability Assessment Protocols.

5.5.1

World Bank Group Operation Policies

The World Bank has ten environmental and social “Safeguard Policies” that are used to examine the potential environmental and social risks and benefits associated with World Bank lending operations. These safeguard policies include the following:

1. Environmental Assessment;
2. Natural Habitats;
3. Forestry;
4. Pest Management;

5. Cultural Property;
6. Indigenous Peoples;
7. Involuntary Resettlement;
8. Safety of Dams;
9. Projects in International Waters; and
10. Projects in Disputed Areas.

The policies of relevance to the Batoka Gorge Hydro Electric Scheme are summarised below:

Environmental Assessment

Operational Procedure 4.01 Environmental Assessment (EA) evaluates a project's potential environmental risks and impacts in its area of influence; examines project alternatives; identifies ways of improving project selection, siting, planning, design, and implementation by preventing, minimising, mitigating, or compensating for adverse environmental impacts and enhancing positive impacts; and includes the process of mitigating and managing adverse environmental impacts throughout project implementation.

Natural Habitats

Operational Policy 4.04 Natural Habitats promotes the conservation of natural habitats. The World Bank therefore supports the protection, maintenance, and rehabilitation of natural habitats. The Bank encourages borrowers to incorporate analyses of any major natural habitat issues, including identification of important natural habitat sites, the ecological functions they perform, the degree of threat to the sites, and priorities for conservation. The Bank also expects the borrower to take into account the views, roles, and rights of groups, including local non-governmental organizations and local communities, affected by any project involving natural habitats, and to involve such people in planning, designing, implementing, monitoring, and evaluating such projects.

Forestry

Operational Policy 4.36 – Forests, involves the management, conservation, and sustainable development of forest ecosystems and their associated resources to ensure lasting poverty reduction and sustainable development, whether located in countries with abundant forests or in those with depleted or naturally limited forest resources. The objective of this policy is to assist borrowers to harness the potential of forests to reduce poverty in a sustainable manner, integrate forests effectively into sustainable economic development, and protect the vital local and global environmental services and values of forests. In accordance with *operational procedure 4.01, Environmental Assessment*, the environmental assessment (EA) must address the potential impact of the project on forests.

Cultural Property

Operational Policy 4.11 – Cultural Property addresses physical cultural resources, which are defined as movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. Physical cultural resources may be located in urban or rural settings, and may be above or below ground, or under water. Their cultural interest may be at the local, provincial or national level, or within the international community. Any project involving significant excavations, demolition, movement of earth, flooding, or other environmental changes are to take cognisance of this policy in the EA.

Involuntary Resettlement

The World Bank's *Operational Policy 4.12: Involuntary Resettlement* is triggered in situations involving involuntary taking of land and involuntary restrictions of access to legally designated parks and protected areas. The policy aims to avoid involuntary resettlement to the extent feasible, or to minimise and mitigate its adverse social and economic impacts. In the event that involuntary resettlement is triggered, the Policy requires the task team and developer to:

- assess the nature and magnitude of the likely displacement;
- explore all viable alternative project designs to avoid, where feasible, or minimize displacement;
- assess the legal framework covering resettlement and the policies of the government and implementing agencies (identifying any inconsistencies between such policies and the Bank's policy);
- review past borrower and likely implementing agencies' experience with similar operations;
- discuss with the agencies responsible for resettlement the policies and institutional, legal, and consultative arrangements for resettlement, including measures to address any inconsistencies between government or implementing agency policies and Bank policy; and
- discuss any technical assistance to be provided to the borrower.

The policy also promotes participation of displaced people in resettlement planning and implementation, and its key economic objective is to assist displaced persons in their efforts to improve or at least restore their incomes and standards of living after displacement. The policy also prescribes compensation and other resettlement measures to achieve its objectives and requires that borrowers prepare adequate resettlement planning instruments prior to Bank appraisal of proposed projects.

Safety of Dams

Operational Policy 4.37: Safety on Dams requires that experienced and competent professionals design and supervise construction, and that the borrower adopts and implements dam safety measures through the project cycle. The policy also applies to existing dams where they influence the performance of a project. The policy also recommends, where appropriate, that Bank staff discuss with the borrowers any measures necessary to strengthen the institutional, legislative, and regulatory frameworks for dam safety programs in those countries.

Projects on International Waterways

Operational Policy 7.50: Projects on International Waterways requires that the borrower make appropriate agreements and arrangements with other the other riparian states prior to financing. The bank is willing to assist borrowers in achieving this end. The policy requires that the international aspects of a project on an international waterway are dealt with at the earliest possible opportunity. If such a project is proposed, the Bank requires the beneficiary state, if it has not already done so, formally to notify the other riparians of the proposed project and its Project/Program Details.

5.5.2 *The International Finance Corporation*

Performance Standards

The International Finance Corporation (IFC), a division of the World Bank Group that lends to private investors, has released a Sustainability Policy and set of Performance Standards on Social and Environmental Sustainability (January 2012) (see *Box 5.1*).

Box 5.1 *Performance Standards on Social and Environmental Sustainability*

- Performance Standard 1: Assessment and Management of Environmental and Social Risks and Impacts;
- Performance Standard 2: Labour and Working Conditions;
- Performance Standard 3: Resource Efficiency and Pollution Prevention;
- Performance Standard 4: Community Health, Safety and Security;
- Performance Standard 5: Land Acquisition and Involuntary Resettlement;
- Performance Standard 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources;
- Performance Standard 7: Indigenous Peoples; and
- Performance Standard 8: Cultural Heritage.

These Standards are used to evaluate any project seeking funding through the IFC. The Equator Principles ⁽¹⁾ which reflect the application by major

(1) The Equator Principles are a financial industry benchmark for determining, assessing and managing social & environmental risk in project financing. As of 01/01/2011, they had been adopted by 70 major banking institutions. The

international banking institutions of IFC-inspired environmental and social best practice guidelines in the financing of large projects have been revised to adhere to the new IFC Performance Standards. However, the Equator Principles Financial Institutions (EPFIs) do not use the IFC’s Sustainability or Disclosure Policy, as these were not adopted by the banks. The EPFIs have their own sustainability and disclosure policies, and take the same approach, eg the borrower’s/client’s project must comply with the Performance Standards and the applicable Environment, Health and Safety (EHS) Guidelines.

The Performance Standards underscore the importance of managing environmental, social and health issues throughout the life of a project. They identify the need for an effective social and environmental management system that is dynamic and continuous, ‘involving communication between the client, its workers, and the local communities directly affected by the Project’. They require ‘thorough assessment of potential social and environmental impacts and risks from the early stages of project development and provides order and consistency for mitigating and managing these on an ongoing basis’.⁽¹⁾ Through the Performance Standards, the IFC also requires that clients engage with affected communities through disclosure of information, consultation, and informed participation, in a manner commensurate with the risks to, and impacts on, the affected communities.

The IFC Performance Standards, and each of their objectives, are outlined in Table 5.5, below.

Table 5.5 International Finance Corporation (IFC) Performance Standards

Performance Standards	Objectives
<p>Assessment and Management of Environmental and Social Risks and Impacts Performance Standard 1 underscores the importance of managing social and environmental performance throughout the life of a project (any business activity that is subject to assessment and management).</p>	<p>The stated purposes of this standard are to:</p> <ul style="list-style-type: none"> • To identify and evaluate environmental and social risks and impacts of the project. • To adopt a mitigation hierarchy to anticipate and avoid, or where avoidance is not possible, minimize, and, where residual impacts remain, compensate/offset for risks and impacts to workers, Affected Communities, and the environment. • To promote improved environmental and social performance of clients through the effective use of management systems. • To ensure that grievances from Affected Communities and external communications from other stakeholders are responded to and managed appropriately. • To promote and provide means for adequate engagement with Affected Communities throughout the project cycle on issues that could potentially affect them and to ensure

Equator Principles reflect a common set of international, IFC-inspired best practices guidelines to manage social and environmental risks related to the financing of large projects.

(1) IFC, 2006.

Performance Standards	Objectives
<p>Labour and Working Conditions Performance Standard 2 recognizes that the pursuit of economic growth through employment creation and income generation should be accompanied by protection of the fundamental rights of workers.</p>	<p>that relevant environmental and social information is disclosed and disseminated.</p> <p>The stated purposes of this standard are to:</p> <ul style="list-style-type: none"> • To promote the fair treatment, non-discrimination, and equal opportunity of workers. • To establish, maintain, and improve the worker-management relationship. • To promote compliance with national employment and labor laws. • To protect workers, including vulnerable categories of workers such as children, migrant workers, workers engaged by third parties, and workers in the client’s supply chain. • To promote safe and healthy working conditions, and the health of workers. • To avoid the use of forced labor.
<p>Resource Efficiency and Pollution Prevention Performance Standard 3 recognizes that increased economic activity and urbanization often generate increased levels of pollution to air, water, and land, and consume finite resources in a manner that may threaten people and the environment at the local, regional, and global levels.</p>	<p>The stated purposes of this standard are to:</p> <ul style="list-style-type: none"> • To avoid or minimize adverse impacts on human health and the environment by avoiding or minimizing pollution from project activities. • To promote more sustainable use of resources, including energy and water. • To reduce project-related GHG emissions.
<p>Community Health, Safety and Security Performance Standard 4 recognizes that project activities, equipment, and infrastructure often bring benefits to communities including employment, services, and opportunities for economic development.</p>	<p>The stated purposes of this standard are to:</p> <ul style="list-style-type: none"> • To anticipate and avoid adverse impacts on the health and safety of the Affected Community during the project life from both routine and non-routine circumstances. • To ensure that the safeguarding of personnel and property is carried out in accordance with relevant human rights principles and in a manner that avoids or minimizes risks to the Affected Communities.
<p>Land Acquisition and Involuntary Resettlement Performance Standard 5 outlines that involuntary resettlement refers both to physical displacement (relocation or loss of shelter) and to economic displacement (loss of assets or access to assets that leads to loss of income sources or means of livelihood) as a result of project-related land acquisition</p>	<p>The stated purposes of this standard are to:</p> <ul style="list-style-type: none"> • To avoid, and when avoidance is not possible, minimize displacement by exploring alternative project designs. • To avoid forced eviction. • To anticipate and avoid, or where avoidance is not possible, minimize adverse social and economic impacts from land acquisition or restrictions on land use by (i) providing compensation for loss of assets at replacement cost⁴ and (ii) ensuring that resettlement activities are implemented with appropriate disclosure of information, consultation, and the informed participation of those affected. • To improve, or restore, the livelihoods and standards of living of displaced persons. • To improve living conditions among physically displaced persons through the provision of adequate housing with security of tenure at resettlement sites.

Performance Standards	Objectives
<p>Biodiversity Conservation and Sustainable Management of Living Natural Resources Performance Standard 6 recognizes that protecting and conserving biodiversity (the variety of life in all its forms, including genetic, species and ecosystem diversity) and its ability to change and evolve, is fundamental to sustainable development</p>	<p>The stated purposes of this standard are to:</p> <ul style="list-style-type: none"> • To protect and conserve biodiversity. • To maintain the benefits from ecosystem services. • To promote the sustainable management of living natural resources through the adoption of practices that integrate conservation needs and development priorities.
<p>Indigenous Peoples Performance Standard 7 recognizes that Indigenous Peoples, as social groups with identities that are distinct from dominant groups in national societies, are often among the most marginalized and vulnerable segments of the population.</p>	<p>The stated purposes of this standard are to:</p> <ul style="list-style-type: none"> • To ensure that the development process fosters full respect for the human rights, dignity, aspirations, culture, and natural resource-based livelihoods of Indigenous Peoples. • To anticipate and avoid adverse impacts of projects on communities of Indigenous Peoples, or when avoidance is not possible, to minimize and/or compensate for such impacts. • To promote sustainable development benefits and opportunities for Indigenous Peoples in a culturally appropriate manner. • To establish and maintain an ongoing relationship based on Informed Consultation and Participation (ICP) with the Indigenous Peoples affected by a project throughout the project's life-cycle. • To ensure the Free, Prior, and Informed Consent (FPIC) of the Affected Communities of Indigenous Peoples when the circumstances described in this Performance Standard are present. • To respect and preserve the culture, knowledge, and practices of Indigenous Peoples.
<p>Cultural Heritage Performance Standard 8 recognises the importance of cultural heritage for current and future generations</p>	<p>The stated purposes of this standard are to:</p> <ul style="list-style-type: none"> • To protect cultural heritage from the adverse impacts of project activities and support its preservation. • To promote the equitable sharing of benefits from the use of cultural heritage. <p>In paragraph 6 it calls for the implementation of international treaties and national laws relating to heritage protection, stating that clients '<i>will identify and protect cultural heritage by ensuring that internationally recognized practices for the protection, field-based study, and documentation of cultural heritage are implemented</i>'. In paragraph 7 it adds that '<i>where the risk and identification process determines that there is a chance of impacts to cultural heritage, the client will retain competent professionals to assist in the identification and protection of cultural heritage</i>'.</p> <p>In paragraph 9 it is also stated that:</p>

Performance Standards	Objectives
	<p><i>'The client is responsible for siting and designing a project to avoid significant adverse impacts to cultural heritage. The environmental and social risks and impacts identification process should determine whether the proposed location of a project is in areas where cultural heritage is expected to be found, either during construction or operations.'</i></p> <p>The standard goes on to specify that Affected Communities and relevant national regulatory agencies should be consulted. It favours the retention of cultural heritage in situ (paragraph 12), only permitting exceptions where there is no feasible alternative and the removal of the resource is carried out 'using the best available technique'.</p> <p>In paragraphs 13-15, the standard addresses impacts on 'critical cultural heritage' defined as:</p> <p><i>(i) the internationally recognized heritage of communities who use, or have used within living memory the cultural heritage for long-standing cultural purposes; or (ii) legally protected cultural heritage areas, including those proposed by host governments for such designation.</i></p> <p>It states that critical heritage should not be removed unless in exceptional circumstances where impacts are unavoidable. In such cases external experts should be retained to assist in its protection and assessment.</p> <p>Where there are legally protected sites, the client is required to comply with legal requirements related to their protection, consult stakeholders and implement additional programmes to promote and enhance their conservation.</p>

5.5.3 *IFC Environmental, Health and Safety (EHS) Guidelines*

The EHS Guidelines are technical reference documents which address IFC's expectations regarding the industrial pollution management performance of its projects. They are designed to assist managers and decision makers with relevant industry background and technical information. This information supports actions aimed at avoiding, minimising, and controlling EHS impacts during the construction, operation, and decommissioning phase of a project or facility. The EHS Guidelines serve as a technical reference source to support the implementation of the IFC Performance Standards, particularly in those aspects related to Performance Standard 3: Pollution Prevention & Abatement, as well as certain aspects of occupational and community health and safety.

When the regulations of a host country (Zambia and/ or Zimbabwe) differ from the levels and measures presented in the EHS Guidelines, projects will be expected to achieve whichever is more stringent. If less stringent levels or measures are appropriate in view of specific project circumstances, a full and detailed justification for any proposed alternatives is required. However, there are no industry specific guidelines for hydropower projects, although guidelines do exist for electrical power transmission and generation.

General EHS Guidelines also exist which contain information on cross-cutting environmental, health, and safety issues potentially applicable to all industry sectors, as listed in *Box 5.2*.

Box 5.2 *IFC General EHS Guidelines*

<p>General EHS Guidelines</p> <p>1. Environmental</p> <p>1.1 Air Emissions and Ambient Air Quality</p> <p>1.2 Energy Conservation</p> <p>1.3 Wastewater and Ambient Water Quality</p> <p>1.4 Water Conservation</p> <p>1.5 Hazardous Materials Management</p> <p>1.6 Waste Management</p> <p>1.7 Noise</p> <p>1.8 Contaminated Land</p> <p>2. Occupational Health and Safety</p> <p>2.1 General Facility Design and Operation</p> <p>2.2 Communication and Training</p> <p>2.3 Physical Hazards</p> <p>2.4 Chemical Hazards</p> <p>2.5 Biological Hazards</p> <p>2.6 Radiological Hazards</p> <p>2.7 Personal Protective Equipment (PPE)</p> <p>2.8 Special Hazard Environments</p> <p>2.9 Monitoring</p> <p>3. Community Health and Safety</p> <p>3.1 Water Quality and Availability</p> <p>3.2 Structural Safety of Project Infrastructure</p> <p>3.3 Life and Fire Safety (L&FS)</p> <p>3.4 Traffic Safety</p> <p>3.5 Transport of Hazardous Materials</p> <p>3.6 Disease Prevention</p> <p>3.7 Emergency Preparedness and Response</p> <p>4. Construction and Decommissioning</p> <p>4.1 Environment</p> <p>4.2 Occupational Health and Safety</p> <p>4.3 Community Health and Safety</p>
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5.5.4 *World Commission on Dams*

The World Commission on Dams (WCD) was established in May 1998 in response to the escalating local and international controversies over large dams, with the mandate to:

- i) review the development effectiveness of large dams and assess alternatives for water resources and energy development; and
- ii) develop internationally acceptable criteria, guidelines and standards for the planning, design, appraisal, construction, operation, monitoring and decommissioning of dams. ⁽¹⁾

The WCD framework puts forward seven strategic priorities which are widely acknowledged as a framework for dialogue (see *Table 5.6*). These seven strategic priorities are each based on a set of policy principles. A set of 26 guidelines for good practice lay out specific actions for complying with the strategic priorities at five key stages of the project development process.

Table 5.6 World Commission on Dams Strategic Priorities

Strategic Priority 1 - Gaining Public Acceptance

In order to develop water and energy resources in an equitable and sustainable manner, it is essential that there is public acceptance of such initiatives. This entails recognising the rights, addressing the risks and safeguarding the entitlements of all interested groups, by ensuring that they are informed about the issues at stake, able effectively to participate in decision-making processes, and that there is demonstrable acceptance of key decisions. Particular care should be taken to include the most vulnerable parties, such as women, the poor and certain indigenous groups, and that decision-making processes are guided by their free, informed and prior consent.

Strategic Priority 2 - Comprehensive Options Assessment

The most appropriate development initiatives for a particular area can only be identified by assessing food, water and energy needs and clearly defining programme objectives. The full range of policy, institutional and technical options, which may well include alternatives to dams, should then be comprehensively assessed in a participatory process that accords the same significance to social and environmental considerations as to economic and financial factors. This process of assessment should continue throughout the planning, development and implementation of the project.

Strategic Priority 3 - Addressing Existing Dams

Dams and the context in which they operate are not static over time. Their benefits and impacts may be transformed by changes in priorities for water use, physical and land use changes in the river basin, technological developments, and changes in public policy expressed in environmental, safety, economic and technical regulations. Management and operational practices should be continuously assessed and adapted to changing circumstances, in order to optimise the benefits, address social issues and improve measures to limit and restore damage to the environment. This process should extend beyond the life of the project, so that the performance, benefits and impacts of all existing large dams can be monitored and evaluated on a long-term basis, and appropriate action taken to improve all aspects of their service delivery.

Strategic Priority 4 - Sustaining Rivers and Livelihoods

Dams transform the landscapes they inhabit, with potentially irreversible effect. It is essential to understand, protect and restore ecosystems at river basin level, in order to minimise their negative impact, limit and mitigate harm to the health and integrity of the river system and

(1) World Commission on Dams (2000a)

those dependent upon it, and promote equitable human development and the welfare of all species. These are key issues when selecting sites and designing projects. Governments should develop national policies for maintaining in their natural state selected rivers with high ecosystem functions and values, and look for alternative sites on tributaries when assessing proposals for dams on undeveloped rivers.

Strategic Priority 5 - Recognizing Entitlements and Sharing Benefits

Rather than benefiting from them, many of those affected by dams are aware only of their negative impacts. To redress the balance, a process of joint negotiation with such groups is required, based on recognition of rights and assessment of risks. The aim of these negotiations is to agree on legally enforceable mitigation and development provisions, which recognise entitlements that improve livelihoods and quality of life. States and developers are responsible for resettling and compensating all affected people, and satisfying them that their livelihoods will be improved by moving from their current situation. Legal means, such as contracts and accessible recourse at national and international levels, should be used to ensure that responsible parties fulfil their commitments to agreed mitigation, resettlement and development provisions.

Strategic Priority 6 - Ensuring Compliance

In order to win and maintain public trust and confidence, governments, developers, regulators and operators must meet their commitments for planning, implementing and operating dams. Compliance with applicable regulations, criteria and guidelines, and project-specific negotiated agreements should be ensured at all critical stages of project planning and implementation. A set of regulatory and non-regulatory mechanisms, incorporating incentives and sanctions, and flexible enough to accommodate changing circumstances, is needed to enforce social, environmental and technical measures. A clear, consistent and common set of criteria and guidelines to ensure compliance should be adopted by sponsoring, contracting and financing institutions, and compliance subjected to independent and transparent review. Legislation, voluntary integrity pacts, debarments and other instruments should be used to eliminate corrupt practices.

Strategic Priority 7 - Sharing Rivers for Peace, Development and Security

The storage and diversion of water on transboundary rivers can cause considerable tension within and between countries. As specific interventions for diverting water, dams require constructive co-operation, and states or political units within countries need to agree on the use of resources in order to promote regional co-operation and peaceful collaboration. Rather than focusing on allocating water as a finite resource, states need to work on sharing rivers and their associated benefits. This will involve negotiating a wide range of issues, and making provision in national water policies for basin agreements in shared river basins. These agreements should be based on the principles of equitable and reasonable use, no significant harm, prior information and the Commission's strategic priorities.

If an objection by a riparian state to a proposal for a new dam on a shared river is upheld by an independent panel, construction should not be carried out. Furthermore, where a government agency plans the construction of a dam on a shared river in contravention of the principle of good faith negotiations between riparians, external financing bodies should withdraw their support for projects and programmes promoted by that agency.

Source: World Commission on Dams (2001)

The WCD dissolved in 2001 having undertaken its assigned activities. The WCD framework, however, has become a key benchmark in international dam building. The World Bank, export credit agencies and the International Hydropower Association, while critical of specific recommendations, have endorsed the WCD's strategic priorities.

5.5.5 *International Hydropower Association (IHA) Sustainability Guidelines*

The IHA Sustainability Guidelines (SGs) were published in February 2004, with the aim of promoting greater consideration of environmental, social, and economic sustainability in the assessment of:

- new energy projects;
- new hydropower projects; and
- the management and operation of existing hydropower facilities.

The principles set out in the SGs encompass a number of elements, which include:

- The role of governments;
- The decision making processes;
- Hydropower - environmental aspects of sustainability;
- Hydropower - social aspects of sustainability; and
- Hydropower - economic aspects of sustainability.

The IHA has put forward policy and sustainability criteria which encourage good governance within each country and collaboration between governments at an international level to ensure sustainable hydropower development prerequisites are met. According to the IHA, it is the responsibility of governments to:

- Have in place national and/or regional energy policies, which should:
 - clearly set out energy development strategies;
 - include a Strategic Assessment (SA) process that involves an assessment of cumulative impacts, determination of land use and environmental priorities, as well as goals for poverty alleviation and economic growth;
 - be framed in the context of the global need to reduce greenhouse emissions;
 - incorporate the three elements of sustainability -- economic, social and environmental -- in energy planning; and
 - be a participatory, streamlined process, focused on major issues, using common sense and readily available information, and with short and definite time limits for its completion.
- Evaluate alternative energy options using key sustainability criteria, prescribed by the IHA; and
- Evaluate hydropower project alternatives using key sustainability criteria, prescribed by the IHA.

In order to facilitate decision making and to ensure the sustainability of hydropower projects, the IHA's policy position is that Environmental Assessments (EAs) should be applied at the project level from the pre-

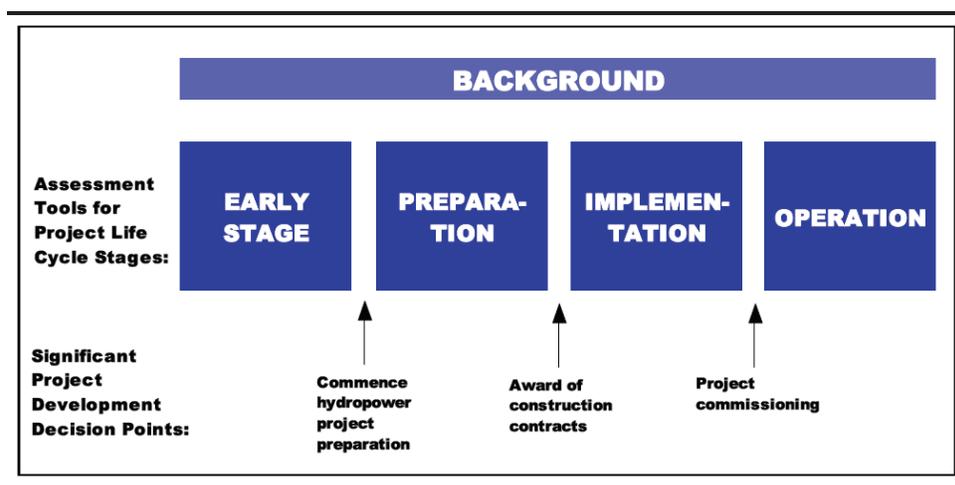
feasibility stage to the post-construction auditing stage. The IHA encourages governments and project proponents, through the use of key criteria, to ensure appropriate management of environmental and social issues throughout the life of the project by adopting strategies to maximise positive outcomes and reduce the severity or avoidance of negative social, economic and environmental impacts.

To support the IHA SGs, the IHA has also developed the Hydropower Sustainability Assessment Protocol, which was released in 2006 and updated in November 2010, to assist in assessing performance against the criteria set out in the IHA SGs.

5.5.6 *Hydropower Sustainability Assessment Protocol*

The IHA Hydropower Sustainability Assessment Protocol (the Protocol) is a sustainability assessment framework for hydropower development and operation. The intention of the Protocol is to enable the production of a sustainability profile for hydropower projects through the assessment of performance against sustainability topics. In particular, the Protocol comprises four assessment tools for the different stages of the project life cycle, as shown in *Figure 5.3*.

Figure 5.2 Protocol Assessment Tools and Major Decision Points



These four assessment tools – Early Stage, Preparation, Implementation, and Operation, are designed to be stand-alone assessments applied at particular stages of the hydropower project life cycle.

The **Early Stage** assessment tool is a preliminary screening tool to assess the strategic environment from which proposals for hydropower projects emerge. It identifies project risks and opportunities at an early stage, in order to identify the challenges and management responses to proceed with a more detailed project investigation.

The **Preparation** assessment tool assesses the preparation stage of a hydropower project, during which investigations, planning and design are undertaken for all aspects of the project. This project stage is normally subject to national regulatory processes regarding project-specific Environmental and Social Impact Assessment (ESIA) requirements as well as project management processes.

The **Implementation** assessment tool assesses the implementation stage of a hydropower project, during which construction, resettlement, environmental and other management plans and commitments are implemented.

The **Operation** assessment tool assesses the operation of a hydropower facility. This Protocol assessment tool can be used to inform the view that the facility is operating on a sustainable basis with active measures in place towards monitoring, compliance and continuous improvement.

Each assessment tool includes a list of topics, which when taken together, provide a list of issues that must be considered to confidently form a view on the overall sustainability of a hydropower project at a particular point in its life cycle. Within each topic, criteria are utilised for the scoring of each topic, these criteria include:

1. Assessment;
2. Management;
3. Stakeholder Engagement;
4. Stakeholder Support;
5. Conformance/Compliance; and
6. Outcomes.

These criteria allow the assessment of both the processes in place to ensure sustainability of the project or operation, and the performance of that project or operation on that particular sustainability topic.

5.5.7 *The Southern African Power Pool (SAPP) Environmental and Social Impact Assessment Guidelines for Hydroelectric Projects and Transmission Infrastructure in the SAPP region* ⁽¹⁾

The Southern African Power Pool (SAPP)

The SAPP is a regional body formed in 1995 through a Southern African Development Community (SADC) treaty, with the objective of optimizing the use of available energy resources in the region and for SADC members to support one another during energy emergencies. The SAPP coordination centre is based in Harare, Zimbabwe. There are four governance documents covering the rights and obligations of the SAPP members. These are:

(1) Environmental and Social Impact Assessment Guidelines for Transmission Infrastructure for the SAPP Region, 2010.

- 'i. Inter-governmental Memorandum of understanding (IGMOU), which grants permission for utilities to participate in the SAPP and enter into contracts and guarantees the financial and technical performance of the power utilities;*
- ii. Inter-utility memorandum of understanding (IUMOU) between parties, defining ownership of assets and other rights, e.g. provision for change in status from participating to operating member;*
- iii. Agreement between operating members (ABOM), which determines the interaction between the utilities with respect to operating responsibilities under normal or emergency conditions;*
- iv. Operating guidelines (OG), which defines the sharing of costs and functional responsibility for plant operation and maintenance including safety rules.'*

The SAPP has the following vision.

- 'Facilitate the development of a competitive electricity market in the SADC region*
- Give the end user a choice of electricity supplier*
- Ensure that the southern Africa is the region for choice for investment by intensive energy users*
- Ensure sustainable energy developments through sound economic, environmental and social practices.'*

Further top the SAPP vision, the SAPP has the following objectives.

- 'To provide a forum for the development of a world class, robust, safe, efficient, reliable and stable interconnected electricity system in the southern African region*
- Coordinate and enforce common regional standards of quality of supply, measurement and monitoring of systems performance*
- Harmonise the relationship between member utilities*
- Facilitate the development of a regional expertise through training programmes and research*
- Increase power accessibility in rural communities*
- Implement strategies in support of sustainable development priorities'*

Purpose of the SAPP ESIA Guidelines

The SAPP Environmental Sub-committee identified the need for ESIA guidelines for transmission infrastructure as a priority. Further to this the sub-committee also designed ESIA guidelines for thermal; plant and hydro scheme projects. The purpose of these guidelines is to assist stakeholders in Southern Africa participating in or undertaking ESIA's. SAPP guidelines recognise the need for a more streamlined ESIA process and improved co-ordination amongst SAPP members. It is noted that the SAPP guidelines are not intended to replace either the international funding requirements or the individual country's legislation with regard to ESIA requirements. The SAPP guidelines purpose is to supplement these mandates, or to provide guidelines in the absence of country legislation pertaining to a specific issue related to transmission infrastructure.

Goals, Objectives and Guiding Principles

The overall goal of the SAPP guidelines is to promote environmentally sustainable livelihoods and development.

The long-term objectives include:

- *Conservation and sustainable use of natural resources,*
- *Protection and enhancement of the quality of all forms of life,*
- *Promotion of public awareness on environmental issues,*
- *Strengthening and building capacities to carry out ESIA,*
- *Integration of environmental considerations in development planning process,*
- *Generation, storage, and dissemination of environmental information, and*
- *Linking grassroots development strategies to global and international initiatives.*
- *To improve the efficiency of electrical systems, by minimising the interaction between the infrastructure and the environment*

The short-term objectives (project specific) include:

- *To assess the nature, intensity and duration of impacts, positive and / or negative, to proposed development projects,*
- *To assist in decision-making with regard to costs and benefits of proposed development projects,*
- *To promote local community and public participation in the ESIA process, and*
- *To promote social and cultural considerations in project design.*

The guiding principles include:

- *Adoption of appropriate policies and legislation to guide the ESIA process,*
- *All development projects to be subjected to the ESIA process,*
- *Equity in allocation of and access to resources, poverty alleviation, and promotion of social justice,*
- *Popular participation of all affected and interested parties including grassroots communities, in the ESIA process,*
- *Accountability of all participating parties to the public,*
- *Transparency throughout the ESIA process,*
- *The ESIA process to take special consideration of the role played by women and children in resource management and any impacts on these groups,*
- *The ESIA process to be a tool in the promotion of sustainable livelihoods and sustainable living.*

The guidelines provide further guidance on the ESIA process to be undertaken, specifically regarding the components and format of an ESIA, and the stakeholder engagement required to be undertaken.