REPUBLIC OF RWANDA

RWANDA ENVIRONMENT MANAGEMENT AUTHORITY (REMA)

GUIDELINES FOR ENVIRONMENTAL IMPACT ASSESSMENT (EIA) FOR OIL AND PETROL PROJECTS IN RWANDA

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Foreword and Disclaimer

The Organic Law No. 04/2005 on modalities for protection and conservation of environment requires all projects to be subjected to environmental impact assessment, in line with its long-term vision of a green economy and sustainable development. The scale and detail varies with project complexity and ecological sensitivity of the site. In order to make these provisions operational, the Government of Rwanda through REMA, embarked on putting in place subsidiary legislations and attendant instruments. To this effect, a set of Regulations and General Guidelines for EIA has been developed. This document is intended to serve as a guideline, which provides recommended approaches and formats for the preparation of a comprehensive EIA report for all Oil and Petrol Station projects.

These Guidelines for conducting EIA for oil and petrol station projects will cover all project phases from planning, construction, operation and post-operation activities of Oil and Petrol station projects. They recognise and aim to contribute to the efforts of the GoR to streamline and ensure that downstream petroleum operations are effectively managed to avoid adverse impacts on the environment and in line with the green economy vision. In developing and applying these guidelines, REMA has taken a participatory approach in which stakeholders' concerns have been solicited and incorporated as far as possible. REMA is also optimistic that these guidelines will further clarify the purpose of EIA and facilitate quality improvement in the conduct of EIA in all development activities particularly in the design and operation of oil and petrol station activities and other downstream petroleum operations. The guidelines have been formulated at a time when the GoR has enacted a specific policy and law to regulate downstream petroleum operations.
This guide should be used together with other EIA instruments developed by REMA i.e. the general guidelines, the regulations and standards, as well as other sector-specific guidelines. It is also meant to be used alongside other policy and legislation documents relating to oil and petrol station projects.

These guidelines have been made at a time when Rwanda is preparing its third National Development Plan- the Second Economic Development and Poverty Reduction Strategy (EDPS-II), and the GoR has renewed its commitment to a green and equitable development agenda. I'm optimistic that these guidelines will serve as useful tools to help all stakeholders to make sustainable development a reality through effective and high quality EIA processes in the petroleum industry.

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Director General, REMA

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ACRONYMS AND DEFINITIONS

Acronym	Definition
EA	Environment Audit
EAC	East African Community
EDPRS	Economic Development and Poverty Reduction Strategy
EIA	Environment Impact Assessment
EIR	Environmental Impact Report
EIS	Environment Impact Statement
EMP	Environment Management Plan
ENR	Environment and Natural Resources
IOO	Implementation and Operations Order
LPG	Liquefied Petroleum Gas
MINAGRI	Ministry of Agriculture
MINALOC	Ministry of Local Government
MINEDUC	Ministry of Education
MININFRA	Ministry of Infrastructure
MINIRENA	Ministry of Natural Resources
MINISANTE	Ministry of Health
RDB	Rwanda Development Board
REMA	Rwanda Environment Management Authority
RNRA	Rwanda Natural Resources Authority
RURA	Rwanda Utilities Regulatory Agency
SMEs	Small and Medium Enterprises
ToR	Terms of Reference

Glossary of terms

A petrol and oil depot is a registered and licensed premise for holding large quantities of petroleum products such as petrol, diesel, kerosene and lubricants before they are distributed to petrol and oil stations.

A petrol and oil station is a registered, licensed premise for the retail sale of petroleum products such as petrol, diesel, kerosene and lubricants. It may also have facilities for servicing vehicles and motorcycles and engineering plant.

A Project Brief is a summary statement of the likely environmental effects of a proposed development and it includes description of the site and proposed development in sufficient detail to enable the Authority to determine whether an EIA is required or not.

Authority means the national body responsible for commissioning, supervising and approving the EIA report and issuing the EIA Certificate to the Developer.

PART 1 - INTRODUCTION

1.1 Petroleum Products, the Economy and the Environment

Petroleum production, use and disposal are central to any economy, as it drives industrial and commercial operations. Petroleum products account for 11% of the primary energy use in Rwanda, with 89% coming from biomass. In Rwanda, the increasing use of motorised transport and the active investments in infrastructure that require heavy fuels, along with the fact petroleum products are imported and transported expensively, make it a special resource.

With the expansion of economic and social development activities that are energy-dependant, petroleum consumption has been on the upward trend. The volatile nature of petroleum products, sensitivity of the ecosystems and under-developed infrastructure of Rwanda's petroleum operations, raise concerns for the environmental impacts. These need to be pre-assessed, analysed and mitigation measures incorporated in the investment activities, through the process of Environmental Impact Assessment (EIA).

Despite the fact that Rwanda has a fairly strong environmental management regime, including General Guidelines for EIA, the sophisticated nature of petroleum operations and the high potential impacts of all petroleum operations irrespective of magnitude or scale, make it necessary to develop sector-specific guidelines. In transport, oil spillage can spread very easily and pollute vast areas of soil, water and other surface and underground resources if no specific mechanisms are in place to contain the spills; at the station; oil and petrol leakages can pollute water and other resources if the storage and pipes at service stations are inappropriately constructed or the stations themselves are poorly sited; and fire hazards can cause immense economic and social losses if the volatility and high inflammation characteristics of petroleum products are not well recognised and factored in the construction, operation and de-commissioning of petrol station projects.

1.2 Overview of the Petroleum Industry in Rwanda

The petroleum industry is typically divided into three major components: upstream, midstream and downstream. Some midstream operations, such as refining, are usually categorised as downstream. Rwanda has no upstream oil industry or refinery activities, so all petroleum operations are downstream[1]. The present petroleum operations therefore exclude refining and

[1] Upstream petroleum operations include exploration, drilling and processing. Downstream petroleum operations are categorised into: refining, importation, transportation, processing, supply, storage & distribution, wholesale and retail sale.

processing of petroleum products. These guidelines are concerned with transportation, storage and sale of petroleum products and disposal of wastes.

Petroleum products imported and used in Rwanda include white fuels (gasoline, diesel, kerosene, various industrial & auto lubricants, etc.); black fuels (bitumen, black oil, etc.) and other petroleum products such as Liquefied Petroleum Gas (LPG). Gasoline (petrol super) and diesel are the main products consumed, 80% of which are used in transport.

As a land-locked non oil producing country, Rwanda imports petroleum products through Kenya and Tanzania and is transported by trucks through the northern and central corridor respectively. As an important input into the development process, oil importation and consumption in Rwanda has been associated with the high economic growth rates that Rwanda has experienced in the last 10 years. In 2009, Rwanda imported an estimated 184 million litres of liquid petroleum liquids and presently (2012) consumes an estimated 205 million litres annually or 17-20 million litres a month)[2]. Petroleum consumption is expected to grow at an annual average rate of 10.1%, rising to an estimated 620,000 m3 annually or about 14,000 bbls of oil per day by 2020.

There are 34 companies licensed to import, distribute and market petroleum products in Rwanda up from less than 5 in 1999[3]. In addition, there are several small scale ones doing retail business. The majority of these have 1-5 petrol stations and purchase petroleum products locally in small quantities from the main dealers. The numerous small operators make both quality and environmental standards regulation rather difficult.

Petroleum transport and distribution is mainly by road, as other infrastructure networks for transporting and distributing large volumes of fuel (rail, pipelines) are undeveloped. This mode of transport and distribution used makes potential environmental impacts of petroleum operations rather high in addition to already high costs of imports.

With respect to fuel storage, Rwanda has five main storage facilities located at Gatsata and Huye with a total capacity of almost 15,000 cubic metres. There are other smaller facilities located in Kigali (Gikondo) and the border town of Gisenyi in Rubavu district.

In terms of retail activities, there are presently 150 petrol stations across Rwanda (as of June 2012), with 3 recently approved for construction. The Government plans to expand and upgrade the storage facilities from a capacity of 30 million litres currently to 150 million litres by 2017. Other small scale retailers are involved in the sale of lubricants and LPG.

[2] New Times Interview with Emmanuel Hategeka, Permanent Secretary MINICOM. (**http://www.newtimes.co.rw/news/index.php?i=14938&a=51576**

[3] Petroleum import and distribution was carried out by ERP (Enterprise Rwandaise de Petrole), SGP (Societe Generale de Petrole), Rwanda Petrolgaz and PetroRwanda (bought out by Shell in June 1999).

1.3 Objectives and Scope of the EIA Guidelines

The general objective of these guidelines is to guide REMA, RDB and their partners in making decisions and approval of proposed projects relating to Oil and Petrol stations in the Environmental Impact Assessment (EIA) process.

The specific objectives of these guidelines are to:

- ✓ To provide criteria for petrol and oil station project classification according to their impacts;
- ✓ To determine roles and responsibilities of all stakeholders in the EIA process;
- ✓ To promote good environmental practices in the design, construction and exploitation of oil and petrol stations;
- ✓ To promote good environmental practices in the management of oil and petrol stations;
- ✓ To provide security measures for staff, vehicles and other persons at the petrol and oil stations.

These guidelines apply to all oil and petrol station projects, whether it's a new project being set up, an upgrade or expansion of an existing station, in conformity with the law. It is intended that these guidelines will be used by:

i) Project Developers (Petrol and Oil Station operators);
ii) Independent consultants undertaking EIA studies and preparing EIA reports
iii) Investment Facilitators and EIA Assessors in RDB;
iv) Environmental compliance and enforcement officials at REMA;
v) Petroleum Licensing and Regulatory Units in MINICOM, RURA;
vi) Local Government Authorities;
vii) Standards and Certification officials at RBS
viii) Stakeholders affected by the housing project developments and/ or proposals;
ix) Community representatives and/ or interested persons;

These guidelines are intended to oil and petrol station developers and their EIA consultants to prepare better quality Environmental Impact Statements, and ensure that sufficient information is available for a proper assessment and for good decision making.
These guidelines will constitute part of the legislative tools put in place with the intension of promoting environmentally sustainable retail petroleum operations in Rwanda.

2. POLICY, LEGAL AND INSTITUTIONAL FRAME WORK

2.1 Policy framework

This guide has been developed at a time when the GoR, through the Ministry of Trade and Industry (MINICOM) is finalising a national Policy and Law on downstream Petroleum operations in Rwanda. It is expected that all commercial and non commercial activities regarding petroleum products transportation, storage, sale and disposal, will be well regulated. In addition, the petroleum import and distribution, including the construction and operation of petrol and oil stations, is guided by a number of policies, key of which are highlighted in table 1:

Table 1: Some key Policy instruments for Oil and Petroleum Projects

	Policy Instrument	Important Provisions for Oil & Petrol Station EIA Projects
1	National Environment Policy, 2005	✓ Provides for conservation and protection of the environment
2	Energy Policy	✓ Secure supply of oil/ petroleum products ✓ Promoting renewable energy as substitutes for hydrocarbons
3	National Land Policy, 2004	✓ Guarantees secure tenure of land that facilitates development; Promotes productive and sustainable land use through land use planning and zoning based on suitability assessments; and promotes efficiency in land use and management; ✓ The Land Policy recognises the need to protect the biotic environment and biodiversity, putting a firm foundation to efforts at environment management and pollution control.
4	National Investment Strategy	✓ Provides modalities and incentives for private sector investment in Rwanda including in the areas of energy and petroleum
5	East African Integration Policy, 2011	✓ Seeks to harmonise standards for petroleum operations, including transport, quality control, etc., with other EAC member countries. ✓ Removal of non trade barriers to trade

2.2 Regulatory framework for Petroleum Products

The regulatory framework for the petroleum industry in Rwanda, specifically the operations of the oil and petrol station activities, comprises of policy and legal instruments; and institutional arrangements outlined here-below:

- Organic Law No. 04/2005 of 08/04/2005 'Determining the Modalities of Protection, Conservation and Promotion of Environment in Rwanda' is the principal environment law in Rwanda. It gives the main attributes of the environment and the duty of all citizens, natural and corporate, to protect the environment and the biodiversity of the country.

- Ministerial Order No. 004/2008, Official Gazette of the Republic of Rwanda of 15 Nov. 2008: List of Works, Activities and Projects that have to undertake an Environmental Impact Assessment lists construction of oil pipelines and its products, gases and storage tanks as one of those for which an EIA is required.
- Ministerial Order No. 005/16.01 of 15/07/2010 'Determining the List of Prohibited Plains to Constructions' gives the list of plains for which constructions are forbidden.
- Ministerial Order No. 008/16.01 of 13/10/2010 'Establishing the List of Swamps and their Limits and Regulating their Management and Use' defines the limits of swamps in which development of any kind must undergo a full EIA process.
- The Rwanda Water Law No. 62/2008 of 10/09/2008 'Putting in Place the Use, Conservation, Protection and Management of Water Resources' Regulations gives the State and the local communities the duty to protect water resources and use them in the natural and balanced manner. It states the polluter-pays principle that is internationally accepted. In Chapter XII, it specifies the various penalties for intentional pollution of surface or groundwater.
- The Rwanda Liquefied Petroleum Gas (LPG) Regulations, 2012, give the legal requirements for the licensing, transportation, storage and sale of LPG in the country.
- Ministerial Order No. 006/2008 of 15/08/2008 'Regulating the Importation and Exportation of Ozone Layer Depleting Substances, Products and Equipment Containing such Substances' gives the list of substances that are deemed to be ozone unfriendly and penalties for violating the Orders. Petrol and oil stations often have refrigeration units which may violate this Order.
- Ministerial Order (N°01 of 17/05/2012**)** determining modalities of establishing and functioning of occupational health and safety committees;
- Ministerial Order (N°02 of 17/05/2012**)** determining conditions for occupational health and safety. In particular, Developers must pay attention to Article 4 which requires ever employer to ensure the health, safety and welfare at workplace for all persons working in his/her workplace.
- The Guidelines for Construction of Petrol Stations, 2011, issued by the Director General of the Rwanda Utilities Regulatory Agency (RURA) govern the construction requirements of petrol and oil stations.
- Ministerial Order No. 003/16.01 of 15/07/2010 '*Preventing Activities that Pollute the Atmosphere*' gives the order to prevent activities that can pollute the environment by regulating open burning of substances; exhaust emissions; emissions from factories and similar emissions. It gives the national tolerance limits for emissions of gases and gaseous suspensions into the atmosphere.
- The Law Relating to Companies No. 07/2009 of 2009 gives the requirements for registration of companies as legal bodies. Companies that are participating in the petrol and oil trade must be registered in accordance with this law.

- The Ministerial Order Relating to Companies No. 01/09 of 2009 allows for registration of small enterprises with an annual turnover of less than 150,000 Rwanda Francs. Sole proprietorships may also be licensed; however, because of the heavy demands of the petrol and oil industry regarding liability for accidents and environmental degradation, this should be discouraged. One must have legally owned (or leased) land, before seeking to register the business. Other activities require a building permit and operational license from RDB (all services at the One-stop-centre).
- Organic Law No. 08/2005 of 14/07/2005 'Determining the Use and Management of Laid in Rwanda' provides for issuance of land titles by the Registrar of Titles. The building permit is issued by the local authority on submission of an acceptable application containing a deed plan, a lease contract, bills of quantities and an approved construction plan.
- The Labour Law No. 13/2009 of 27/05/2009 regulates employment and labour issues in Rwanda. This Act consolidates all laws relating to labour, employers, trade unions and industrial relations. The Act provides for the protection of employment, general conditions of employment, unfair labour practices, trade unions and employers organizations, occupational health, safety and environment, and labour inspection. The law provides Dispute and dismissal, normal time, overtime, public holidays and leave: annual, sick, maternity and family responsibility.

2.3 Institutional Framework

The regulation of the petroleum industry in Rwanda is shared by various institutions, including the Ministry responsible for energy and infrastructures (MININFRA), Ministry of Trade and Industry (MINICOM) under a special petroleum unit, Ministry of Natural Resources (MINIRENA), through parastatal agencies, viz:

i) Rwanda Utilities Regulatory Authority (RURA) which regulates the infrastructure development and transportation aspects;
ii) Rwanda Development Board (RDB) which licenses the investments and approves the Environmental Impact Assessment, as part of the investment facilitation process, and follows up on environmental conditions stipulated in the investment licenses;
iii) Rwanda Environment Management Authority (REMA) – which monitors and ensures that developments comply with the country's environmental laws, including follow-up on the implementation of the Environmental Management Plan (EMP);

In terms of investment licensing, however, all clearance permits and other requirements are all issues by the One-Stop centre (in RDB) as long as the investor has proof of land ownership.

Only the prices of diesel and gasoline are fixed by the government through the Petroleum Special Unit in MINICOM. Other petroleum products are not controlled.
The key institutions with roles in the EIA for Petrol station projects are summarised in table 2.

Table 2: Key Institutions in the EIA for Petrol station Projects.

	Institution/ Agency	Roles / Responsibilities in the EIA processes for Oil and Petrol Stations
1	Ministry of Infrastructures(MININFRA)	Formulating policies, laws and standards for energy development and use, especially hydro-carbons; as well as building and construction activities for petrol station operations; and transport of petroleum products.
2	Ministry of Trade and Industry (MINICOM)	Policies and laws relating to licensing of downstream petroleum trade activities, including retailing petroleum products
3	Rwanda Utilities Regulatory Agency (RURA)	Regulates Utilities including Transport and Energy and construction; Has developed guidelines for construction of Petrol and Oil Stations.
4	Rwanda Development Board (RDB)	RDB One Stop Centre issues licenses to investors, commissions and approves EIA in collaboration with REMA. In the EIA process, RDB reviews the EIA reports, organises site visits and public hearing; and ensures that due diligence is made in the EIA process before the certificate is issued.
5	Rwanda Environmental Management Authority (REMA)	National authority responsible for environmental regulations and standards setting, and overseeing the implementation of EIA guidelines. REMA is responsible for monitoring the implementation of EMPs for approved projects as part of the compliance enforcement; and ensuring that the EIA process is undertaken as per the law and established standards.
6	Ministry of Natural Resources (MINIRENA)	Formulating policies, laws and standards for land administration and land use planning; environmental protection and natural resources utilisation.
7	Local Authorities (including City of Kigali and District Councils)	Responsible for issuance of land licences for development projects; implementation of land use zoning, building standards including adherence to EIA guidelines, and construction approval and inspection.
8	EWSA	Provision of Water and Energy utilities to Petrol stations; Preventing pollution of water supply networks and hydrological networks
9	Ministry of Health (MINISANTE)	Responsible for setting policy and guidelines and initiating national legislation relating to Sanitation and Public health issues as well as public safety – which are a key component of Petrol and oil station management.
10	Rwanda National Police (including specialised Fire Services)	The National police have statutory responsibility for law enforcement including ensuring that fires hazard management and other precautions for disaster management are followed by developers. The specialised Fire Services of the Police respond to fire hazards guidelines, they are expected to inspect and certify the fire safety installations especially for public buildings or those designed for many people. Ensure that the Petrol and Oil stations take basic precautions for public security.
11	Ministry of Public Service and Labour	Setting the labour and employment policies and laws, including the recruitment, compensation, welfare and working conditions of workers.
12	Rwanda Bureau of Standards	Quality monitoring and certification with respect to quantity measures (calibration) and quality of petroleum products imported and vended at petrol stations, as well as fire fighting equipment installed at stations.
13	Rwanda Revenue Authority	Ensuring that oil and petroleum products delivered and dispensed at petrol stations are imported and transported and stored through legal channels; and no smuggled petroleum products are sold at the petrol stations.
14	Private Sector Federation	Mobilising and sensitising members involved in the Petrol station value chains to appreciate and follow the EIA guidelines.

	Institution/ Agency	**Roles / Responsibilities in the EIA processes for Oil and Petrol Stations**
15	Civil society (including Private sector & NGOs)	Civil society and interested private entities have advocacy roles to ensure that all actors follow the EIA guidelines and other building best practices.
16	EIA Experts	Registered and REMA Certified EIA experts conduct EIA in a professional and independent manner; and advise Developers to follow the standards and regulations of EIA.
17	Financial Institutions (Banks, Insurance Companies)	Ensure that the Petrol and Oil stations projects for which financing are approved, have made precautions for sound environmental management, as per the laws and standards set for EIA.

3. PROJECT CYCLE FOR PETROL AND OIL STATIONS

3.1 The Petrol/Oil Station Project Cycle

The development and operation of a typical oil/petrol station project follows 3 to 4 phases. These and the key environmental impact issues to look at are summarised in the figure 1:

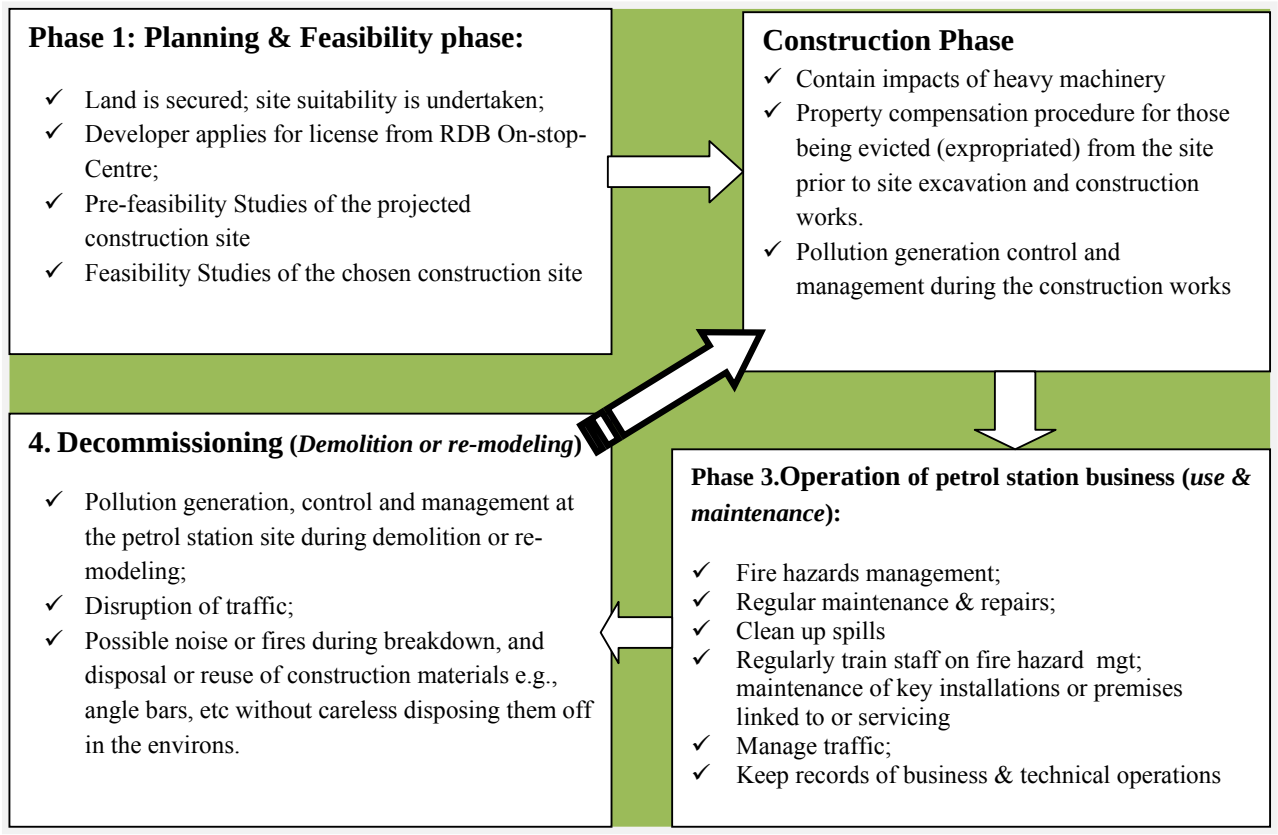


Figure 1: Phases/ Project Cycle of a Petrol and Oil station project and associated environmental impacts.

3.2 Structure and Characteristics of Petrol and Oil Stations

The common attributes of petrol and oil stations are:

- Storage of petrol, diesel, kerosene, liquefied petroleum gas (LPG) and lubricants;
- Sale of petrol, diesel, kerosene, liquefied petroleum gas (LPG) and lubricants;
- Servicing of motor vehicles, motorcycles and motor plant and equipment;
- Sale of motor vehicle and motorcycle accessories such as tyres and tubes;
- Sale of additional items such as household items and groceries;
- Office space and rental space;

- Car washing; and
- Minor repair to vehicles and cycles.

The petrol and oil stations must also have:

- Source of power: mains power with backup generator;
- Collection, storage and disposal of used oil, waste lubricants and contaminated products;
- Garbage collection, sorting, storage and disposal facility;
- Adequate drainage for rainwater;
- A clear occupational health, safety and quality policy that all employees are committed to implementing;
- Methods of testing of employees that are suspected of abusing alcohol or drugs within the work place;
- Wastewater separation from oil before discharge.

The petrol and oil station shall ensure that its employees have:

- Adequate personal protective equipment (PPE) such as uniforms, safety boots, helmets, gas masks, goggles, gloves and overalls as necessary for their work; and
- Adequate training and regular drills in emergency responses to fires and accidents.

3.3 Compulsory minimum requirements for petrol and oil stations

All petrol and oil stations must have the following, irrespective of their size and location:

- A permit to operate, issued by the competent national, regional, urban or local authority;
- One underground storage tank for each petroleum products sold at the station with a minimum capacity of 5,000 litres;
- One digital dispensing pump (two-way) for each petroleum product sold at the station. All dispensing pumps should be covered;
- One service bay;
- Auxiliary power source (thermal or solar);
- Adequate office space for the management;
- Operation room and changing / rest rooms (preferably gender segregated) for the pump attendants and mechanics;
- A record keeping system, indicating receipts of petroleum products and lubricants; waste and spillage of products and sales of products;
- A certification system for the accuracy of the pumps. Certification should be routinely done by a competent national, regional, urban or local authority;

- Fire detection, fire fighting and fire suppression capacity, with the larger petrol stations having more capacity;
- Full time security which may be armed with various weapons such as arms and ammunition or bows and arrows;
- Adequate parking space for vehicles awaiting to unload petroleum products, those buying products and those shopping;
- Waste collection, storage and disposal facilities. Where service is being done, the station must have long term collection facilities before the service wastes are collected by a licensed used oils collector.

Ownership of the petrol and oil station is an important issue because it determines the ability and willingness to comply with the set standards. Petrol and oil stations shall be owned by legal entities (corporate or individual investors). The developer should ensure that ownership is granted to legal entities (those registered in accordance with Law regarding Companies (No. 07/2009 of 2009) and the Ministerial Order relating to Companies (No. 01/09 of 2009), before applying for an EIA. They must be licensed to operate as a petrol station by the competent authority. It is the Developer's responsibility to ensure that the EIA is undertaken by an Expert, groups of experts or a firm duly recognised by REMA and RDB and gazetted by the Minister's order. The EIA Expert shall follow the following processes during the EIA process.

4. THE EIA PROCESS FOR PETROL AND OIL STATIONS

4.1 Why EIA for Oil and Petrol Station Projects?

Petrol and oil stations are a fire hazard and should not be located in heavily built up areas. They should be located along the main roads within the urban areas and on the highways. The developer should select a location that takes into consideration the following:

- fire hazard management;
- ease of access by motorists without obstructing traffic;
- drainage of storm water;
- Parking for client vehicles and for the fuel transporters.

Planning permission in relation to the physical plan of the area should be obtained before deciding on the location. If the Local Authorities do not approve the location, then the developer should consider taking the project to an alternative site or location. Three alternatives should be pursued so as to get the most suitable one for the petrol and oil station.

Petrol and oil stations that already exist in built up areas must take precautions in the transport, storage and handling of petroleum products so as to minimize the possibility of fires and spillage of petroleum products. REMA will carry out annual environmental audits in accordance with the Audit Guidelines and Regulations of Rwanda. Those stations that are found to be located in unsuitable environments should be relocated by the owners and a restoration of the area carried out as instructed by REMA.

No new licenses may be given for the establishment of petrol and oil stations in built up areas.

4.2 Classification of Oil and Petrol Station Projects

Petrol and Oil station projects have varying impacts on the environment depending on a range of factors. For purposes of making rational decisions regarding which projects should be subjected to what level of EIA, and to facilitate effective screening, such projects are categorised into 3 classes i.e.: IL 1, IL 2, and IL 3. These categories are based on a set of criteria outlined in 3.2.1.

4.2.1 Criteria for classification of Petrol and Oil station Projects

The following criteria are used to classify the Petrol and Oil stations according to the potential impact levels:

- Project size: the capacity of storage, serving capacity (e.g. number of pumps), subsidiary activities (e.g. shops, restaurants);
- Location – any petrol station located in an ecologically sensitive area (e.g. in a forest, national park or near a wetland), EIA is mandatory irrespective of other project features;

- Nature of the project – whether the project is new and will result in change of land use; or is just an upgrade or expansion of an existing project;
- Nature of Products- the extent to which the products transported, stored, sold, disposed of, etc., are volatile, inflammable, toxic, corrosive, poisonous, persistent in the environment, non biodegradable or otherwise has negative impacts on any component of the environment, people or economic activities.

4.2.2 Categories of Projects by Environmental Impact Levels

For purposes of the EIA, oil and petrol station projects are classified into 3 categories as follows:

1. Impact Level 1 (IL 1): Projects not requiring further environmental analysis

Projects in this category are believed to have minimal adverse impacts, which can easily be identified through a Project Brief. For potential impacts of these projects, mitigation measures can be integrated in the project design without necessarily requiring a detailed EIA. Hence, after a period of public input the project passes directly to decision-making level.
Petrol and oil station projects in this category are believed to have minimal adverse impacts, which can easily be identified in a Project Brief. They are classified as small petrol/oil stations.
A small sized petrol and oil station should have most of the characteristics below:

- A combined storage (of petrol, diesel, kerosene, LPG and lubricants) less than 20,000 litres with one or two underground tanks;
- Sale of petrol, diesel, kerosene, LPG and lubricants using 3 (three) or less fuel pump nozzles;
- Basic servicing of motor vehicles, motorcycles and motor plant and equipment;
- No sale of automobile accessories such as tyres and tubes, lubricants;
- No supermarket for the sale of additional items such as household items;
- No rental of office space within the station;
- No washing bay(s) within the petrol station premises;
- No garage for minor repair to vehicles and cycles;
- Adequate parking space for clients with limited additional space for other activities;
- Wastewater separation from oil before discharge;
- Collection, storage and disposal of used oil, waste lubricants and contaminated products;
- Garbage collection, sorting, storage and disposal facility;
- Adequate drainage for rainwater;
- A clear occupational health, safety and quality policy that all employees are committed to implementing;
- Methods of testing of employees that are suspected of abusing alcohol or drugs within the work place;

- Adequate personal protective equipment (PPE) such as uniforms, safety boots, helmets, gas masks, goggles, gloves and overalls as necessary for their work; and
- Adequate training and regular drills in emergency responses to fires and accidents.

IL 2: Projects not requiring a full EIA but necessitate further level of assessment

This category represents projects believed to have adverse, but not irreversible environmental impacts and mitigation and management measures can be readily designed and incorporated into the project. The EIA process for these projects is similar to that of IL3 projects.
Petrol and oil stations in this category are classified as medium sized.
A medium sized petrol and oil station should have most of the characteristics below:

- Storage of petrol, diesel, kerosene, LPG and lubricants with storage capacity of more than 20,000 litres and two or more underground tanks;
- Sale of petrol, diesel, kerosene and lubricants using 4 – 6 fuel pump nozzles;
- Full servicing of motor vehicles, motorcycles and motor plant and equipment with one service bay;
- Sale motor vehicle and motorcycle accessories such as tyres and tubes in a shop for MV accessories;
- Sale of additional items such as household items, communication items (mobile phones and air time cards) in a supermarket / general sales shop;
- Have minimal rental of office space within the station;
- Have a car washing bay(s);
- Have no garage for minor repair to vehicles and cycles;
- Have adequate parking space for clients with minimal recreational space;
- Source of power: mains power with backup generator or generator only;
- Wastewater separation from oil before discharge;
- Collection, storage and disposal of used oil, waste lubricants and contaminated products;
- Garbage collection, sorting, storage and disposal facility;
- Adequate drainage for rainwater;
- A clear occupational health, safety and quality policy that all employees are committed to implementing;
- Methods of testing employees suspected of abusing alcohol or drugs within the work place;
- Adequate PPE such as uniforms, safety boots, helmets, gas masks, goggles, gloves and overalls as necessary for their work; and
- Adequate training and regular drills in emergency responses to fires and accidents.

IL 3: Projects requiring a full EIA

This category involves projects for which it is evident that there will be significant and adverse environmental impacts whose mitigation measures cannot readily be prescribed, and thus, must undergo through a complete EIA process.

Petrol and oil stations in this category are regarded as large. This category includes petroleum depots and LPG filling stations. This category involves projects for which it is evident that there will be significant and adverse environmental impacts whose mitigation measures cannot readily be prescribed, and thus, must undergo through a complete EIA process.

A large petrol and oil station should have most of the characteristics below:

- Storage of petrol, diesel, kerosene, LPG and lubricants with storage capacity of more than 60,000 litres and more than 3 (three) underground tanks;
- Sale of petrol, diesel, kerosene, LPG and lubricants with more than 6 fuel pump nozzles;
- Servicing of motor vehicles, motorcycles and motor plant and equipment with one or more service bays;
- Sale motor vehicle and motorcycle accessories such as tyres and tubes in a shop for MV accessories;
- Sale of additional items such as household items, in a supermarket / general sales shop;
- With rental space within the station;
- Car washing at one or more car washing bays;
- Minor repair to vehicles and cycles in a garage within the station;
- Large parking and recreational space where multiple activities such as parties may be held;
- Wastewater separation from oil before discharge;
- Collection, storage and disposal of used oil, waste lubricants and contaminated products;
- Garbage collection, sorting, storage and disposal facility;
- Adequate drainage for rain/ storm water;
- A clear occupational health, safety and quality policy that all employees are committed to implementing;
- Methods of testing employees suspected of abusing alcohol or drugs at the work place;
- Adequate PPE such as uniforms, safety boots, helmets, gas masks, goggles, gloves and overalls as necessary for their work; and
- Adequate training and regular drills in emergency responses to fires and accidents.

A petroleum depot should have most of the following characteristics:

- Storage for petroleum products petrol, diesel, kerosene and lubricants;
- Storage for LPG and an LPG cylinder filling plant;
- Adequate office space for the staff;
- Adequate parking space for vehicles that are bringing in the products and those that are taking away products, including turning radius for the articulated trucks;
- Adequate security – fencing, gates, security lighting and alarm systems;

- Warning systems, including those for avoidance of open fires, no smoking, emergency assembly areas, access controls to certain areas, etc.;
- Fire detection and fire fighting systems, including tanks dedicated for fire fighting water and foam;
- Each tank should be surrounded by a containment wall of adequate capacity to reduce chances of escape of petroleum products in case of leakage or fire;
- Adequate drainage for surface water and spills of products;
- Adequate oil-water separation at the drains and processes to recover products that have been contaminated by water or soil;
- Adequate detergent capacity for clean up;
- Waste collection, storage and disposal facilities;
- A clear occupational health, safety and quality policy that all employees are committed to implementing;
- Methods of testing of employees that are suspected of abusing alcohol or drugs within the work place;
- Adequate PPE such as uniforms, safety boots, helmets, gas masks, goggles, gloves and overalls as necessary for their work; and
- Adequate training and regular drills in emergency responses to fires and accidents.

If the location of the petrol and oil station or depot is in a sensitive ecological area, it must be categorized as IL 3 for which an EIA is mandatory.

The characteristics above will provide guidance in the assessment of the adequacy and appropriateness of the designs and drawings as well as the project site. Where some facilities above are missing from the design, the EIA report must highlight them so that the developer can make necessary adjustments/ improvement.

The above definitions notwithstanding, categorisation of project impact levels and extent of EIA studies (with respect to duration and detail of terms of reference) will be determined by RDB.

If a full EIA is not required, the project is exempted from further compliance with the EIA process in which case, RDB issues a certificate to that effect and advises the developer and relevant licensing authority of the exemption. Conversely, if an EIA is required, RDB informs the developer that a full impact study must be undertaken.

4.3 Basic Steps in the EIA for Oil and Petroleum Projects

4.3.1 Project Application and Registration by RDB

The first step of the EIA process is a developer submitting an application for EIA of a proposed project to RDB in form of a Project Brief. RDB registers the Project Brief as the developer's formal application for an EIA. The purpose of a Project Brief, prepared as prescribed by the EIA Regulations, is to provide sufficient information on the project to enable RDB and Lead Agencies

establish whether or not the proposed activities are likely to have significant environmental impacts, and also enable to determine the level of EIA required (screening). If adequate mitigation measures are identified in the Project Brief, the need for conducting full EIA may be waived and a project may be approved with minimal implementation conditions.

At a minimum, a Project Brief submitted to RDB shall contain the following information:

i) Name, title and address of developer.
ii) Name, purpose, objectives and nature of project, including attributes such as size of project, design, activities that shall be undertaken during and after the establishment of the project, products and inputs, sources of inputs, etc.
iii) Description of the proposed project site and its surroundings and alternative sites, if any, where the project is to be located.
iv) Description of how the proposed project and its location conform to existing laws, regulations and policies governing such project, including land use of proposed site.
v) Any likely environmental impacts that may arise due to implementing various phases/stages of the project and proposed mitigation measures thereto.
vi) Description of any other alternatives, which are being considered (e.g. siting, technology, construction and operation procedures, sources of raw materials, handling of wastes etc., decommissioning/closure and site restoration).
vii) Any other information that may be useful in determining the level of EIA required.

4.3.2 Screening

This is the first step in the environmental impact process and should give a preliminary indication of the impacts of the project.

Once a Project Brief has been received and reviewed by the Authority, a proposed project is exempted from further compliance with EIA requirements if all of the following conditions are satisfied (IL 1):

1. The project will not substantially use natural resources in a way that pre-empts use or potential use of that resource for any other purpose.
2. Potential residual impacts on the environment are likely to be minor, of little significance and easily mitigated.
3. The type of project, its environmental impacts and mitigation measures are evident and well understood.
4. Reliable means exist for ensuring that impact management measures can and will be adequately planned and implemented.
5. The project will not displace significant numbers of people, families or communities.
6. The project is not located in, and will not affect, environmentally-sensitive areas such as:
    a) National parks
    b) Wetlands

c) Productive agricultural land
d) Important archaeological, historical and cultural sites
e) Areas protected under legislation
f) Areas containing rare or endangered flora or fauna
g) Areas containing unique or outstanding scenery
h) Mountains or developments on or near steep hill slopes
i) Forests
j) Lakes or their shores
k) Areas important for vulnerable groups such as fishing communities
l) Areas near high population concentrations or industrial activities where further development could create significant cumulative environmental problems
m) Ground water recharge areas or drainage basins.

7. The project will not result in and/or:
   a) Policy initiatives which may affect the environment
   b) Major changes in land tenure
   c) Changes in water use through irrigation, drainage promotion or dams, changes in fishing practices.
8. The project will not cause:
   a) Adverse socioeconomic impact
   b) Land degradation
   c) Water pollution
   d) Air pollution
   e) Damage to wildlife and habitats
   f) Adverse impact on climate and hydrological cycle
   g) Creation of by-products, residual or waste materials which require handling and disposal in a manner that is not regulated by existing authorities.
9. The project will not cause significant public concern because of potential environmental changes. The following are guiding principles:
   a) Is the impact positive, or harmful?
   b) What is the scale of the impact in terms of area, numbers of people or wildlife affected?
   c) What is the intensity of the impact?
   d) What will be the duration of the impact?
   e) Will there be cumulative effects from the impact?
   f) Are the effects politically controversial?
   g) Have the main economic, ecological and social costs been quantified?
   h) Will the impact vary by social group or gender?
   i) Is there any international or trans-boundary impact due to the proposed projects?

10. The project will not necessitate further development activity, which is likely to have a significant impact on the environment.

Screening, carried out by the Authority is a process of determining impact level of a proposed project, which then determines extent of the EIA study.
When the Authority receives the Project Brief, it reviews it seeking input from appropriate Lead Agencies and other relevant stakeholders. Based on information in the Project Brief and established project screening criteria above, RDB determines whether or not an EIA is required and the developer is accordingly notified.
Screening enables early identification of environmental issues of major concern and incorporation of appropriate mitigation measures. Screening also enables identification of potential impacts on natural resources (direct or indirect, negative or positive e.g. excessive resource consumption, waste generation, new jobs, markets,..).
Screening enables categorisation of projects according to their Impact Level (IL) as follows:

4.3.3 Scoping and Terms of Reference

Scoping is the initial step of the Environmental Impact Study phase and involves input of relevant Lead Agencies, stakeholders and the developer to obtain their comments on what should be included in the study and what alternatives should be considered.
The purpose of scoping is:

- To consider the main environmental problems to be studied, alternatives and to ensure that the spatial and temporal scopes and extent of the environmental assessment is compatible with the size of the project.
- To determine appropriate EIA methods relevant to the project's potential environmental and socio-economic impacts.
- To provide information to communities in areas affected by the project on environmental problems and alternatives so that they may take part in identification and assessment of the project's environmental and socio-economic impacts.
- Scoping is a necessary step in formulation of detailed ToR for impact assessment by the developer.

The ToRs ensure that important issues are not overlooked by the EIA Experts and developers during EIA studies. The ToRs outline conditions and expected output of an impact study.
ToRs shall include:

i) Issues to be assessed during the impact study, as identified during scoping,
ii) ii) Sufficient description of the specific work tasks for the EIA Experts,
iii) Stakeholders to be consulted,
iv) Description of the experts required for the impact study.

At the end of this exercise, the scoping report produced is submitted to RDB for review. Any relevant comments raised by the public after review of Project Briefs of IL-3 and IL-2 projects will also be incorporated in the ToRs. When the ToRs have been approved by the Authority, they are sent to the developer as authorisation to commence the EIA studies. A detailed scoping and screening checklists for petrol and oil station projects are attached as Annex2 and 3 respectively.

4.3.4 Environmental Impact Study and Reporting

The EIS which is a research and investigation phase of the EIA process is the main stage of intervention. For petrol station, as in other projects, it involves a three-step process:

1) *Potential impacts of a project and their magnitude are identified*. Also included in this step is the Analysis of Initial State. IL-3 projects start the EIS process at step 1 while IL-2 projects start the process at Step 2. IL-1 projects are not subjected to EIS, and instead they go directly to the Decision-making and Authorization stage. IL-1 projects are however subjected to a period of public review during which stakeholders may submit written views to the Authority.
2) An Environmental Impact Report including an Environment Management Plan (EMP) is drafted on completion of the investigations. The main objective of an EMP is to streamline environmental issues into the business and operational plans of the project. An EMP is incorporated into the Environmental Impact Report and submitted to the developer who may, if necessary, append an addendum (*Environmental Impact Report Addendum)* to the EIA report. The developer then submits the EIA report to the Authority, which checks for completeness before passing them on to Lead Agencies and stakeholders for review (Step 3).
3) The EIR is subjected to a formal public hearing and post-hearing consultation. Output of the public hearing is a Public Hearing Report, written by the presiding officer (RDB staff). The public hearing report, EIR and the developer's response, constitute the basis for decision making regarding approval or disapproval of the project. The EIA Experts should be present at public hearings to assist the developer in providing technical description of the project, potential impacts and justification of proposed mitigation recommendations.

Some key tasks that must be performed by the EIA experts during impact study are:

- **Analysis of the initial state:** During environmental impact study, EIA Experts should undertake an analysis of the initial state of the environment performed to create a comparative basis of impacts after project implementation commences. Analysis of Initial State should include a record of baseline environmental conditions considered to be threatened by the project. It may utilise scientific data, photographs of the area, or any other geophysical records. This information will be kept on record at the Authority for historical reference.

- **Identification and Analysis of Impacts:** This involves prediction and analysis of potential socio-environmental impacts that would result from developing, operation and decommissioning of the project.

- **Mitigation Measures, Alternatives and Monitoring:** This entails identification and assigning responsibilities and duties related to impact mitigation, alternative project options and requirements for monitoring. After mitigation measures have been identified, viable alternatives considered, details and schedule for monitoring during project implementation identified, the EIA Experts shall include this information in the Environmental Impact Report.
  - **Mitigation Measures:** Mitigation measures are intended to prevent or minimize negative impacts of a project and enhance the positive ones. EIA Experts shall develop mitigation measures for IL-3 projects, basing on findings of the environmental impact study. Mitigation measures for IL-2 projects will be based on nature of the project, its components and input of the review committees. The EIA experts shall prioritise mitigation measures, organizing them into a hierarchy of importance with highest priority given to measures that prevent highly significant adverse environmental or socioeconomic impacts.
  - **Review of Alternatives:** During EIA studies, the EIA experts shall undertake an analysis of alternatives with the view of finding feasible ways to prevent or minimize negative impacts while maintaining project objectives. Alternatives suggested will be evaluated by the Technical Committee during the decision-making process. The EIA experts shall make a systematic comparison of the proposed investment design, site, technology, and operational alternatives in terms of their potential environmental impacts, capital and recurrent costs, suitability under local conditions, and institutional, training and monitoring requirements. For each alternative, the environmental costs and benefits should be quantified to the extent possible, economic values should be attached where feasible, and the basis for the selected alternative should be stated. The "*No project*" option which implies that the project may not be implemented should also be analysed.

- **Preparation of EIA Report:** The EIA experts shall compile results of an impact study into a report termed an *Environmental Impact Report*. This document should provide the Authority with sufficient information to objectively appraise and either approve or disapprove of a proposed project. The Environmental Impact Report should be forwarded to the developer who shall have the responsibility of submitting it to REMA.

  An EIA report shall have the content outlined Appendix 3. While there is no limit to number of pages required, EIA Report should be concise, addressing only the relevant issues based on logical assumptions and simulations.

4.3.5 Environmental Impact Report Addendum

After going over the EIA report, the developer may consider some information insufficient and requires clarification or want to add organisational or technical information relevant for authorisation. In such circumstances, the developer is encouraged to attach a supplementary addendum to the EIA Report before submitting the documents to REMA. This addendum will address specific changes in mitigation measures and/or plans for monitoring. The addendum will indicate changes to specific parameters, measurements, or mitigation requirements in the EIA report and propose alternatives. Each change to the EIA report should have a short description and a concise reason justifying it.

4.3.6 Submission of EIA Report to the Authority

After a developer has reviewed the EIA report and, if necessary, written an addendum, these documents, which should be signed by the EIA experts, are submitted by the developer to REMA. The developer shall submit at least five copies of the EIA report to the Authority.

When submitting EIA documents to the Authority, developers shall indicate any information, which they wish to remain confidential. All such confidential information shall only be privy to the developer, EIA experts and the Authority.

The Authority shall ensure that for any project ready for review, three principal documents are available, namely:

i) Environmental Impact Report (EIR) including Environment Management Plan (EMP),
ii) ii) Developer's Environmental Impact Report Addendum (where applicable),
iii) Public Hearing Report.

REMA cannot start the review process if any of the above documents is missing.

4.3.7 EIA Report Review, and Decision-Making

Review of EIA documents submitted to the Authority enables subsequent decision-making on either approval or disapproval of a project.

a) Public Hearing

RDB is responsible for conducting public hearings during the EIA process. The purpose of a public hearing is to furnish interested and affected parties and the public with an opportunity to comment on, or raise issues relevant to an application for environmental authorization. Participants to the public hearing will include: Government agencies with responsible for licensing, regulating or facilitating petrol and oil station operations (RDB, REMA, RURA, RBS, MINICOM, MINIRENA, MININFRA, RNRA, MIFOTRA), concerned Local Authorities; Private

sector Federation; National Police Fire Brigade; Professional Associations including Impact Assessors and Engineers' Body (if and when registered); Local community representatives; non-governmental organisations and the developer.

During the public hearing, the developer will be given time to deliver a presentation to stakeholders, describing the project, perceived impacts and proposed mitigation measures. For completeness, the developer may also discuss findings of the EIA. If a public hearing is held during scoping, the developer should be available to describe the project, potential impacts and proposed mitigation measures to stakeholders. Developers may co-opt their legal counsels or EIA experts as either principal or secondary speakers during presentation at public hearings. On completion of this process, the Authority compiles a public hearing report.

(b) Review by Lead Agencies, Local Governments and Community

Once EIA documents are received, copies are forwarded to relevant REMA and Lead Agencies, Local Governments and availed to general public to provide comments that would be useful for making a final decision about approval of the proposed project.

In reviewing the addendum, the Technical Committee shall make an informed decision on the validity of changes made to the EIA Report and the rationale for any adopted changes will have to be explained in the committee's Technical Summary Report.

Upon completing the review, the committee shall draft a Technical Summary Report to include:

i) a summary of the project,
ii) the decision of the Technical Committee concerning acceptability of the project,
iii) rationale for adopting changes in the EIA report addendum,
iv) any other information suggested by the Technical Committee.

The Technical Summary Report shall be signed by all Technical Committee members and submitted to the Executive Committee for final review. Where one or more members are not in agreement with the general position of the Technical Committee, these members shall present their views in a separate document to be submitted with the Technical Summary Report to the Executive Committee. If a project is to be approved with conditions, the Technical Committee shall incorporate them in terms and conditions for implementation.

The Executive Committee makes the final decision on acceptability of a proposed project. The committee shall comprise three members; the Director General of the Authority (as Chair), Authority's Director of EIA Department and a representative of a relevant Lead Agency.

The review by Executive Committee shall dwell on implications of identified impacts, their mitigation measures and input from public hearings. For impacts, the review will focus mainly on consideration and choice of alternatives, while for mitigation measures, the decision would be based on their effectiveness. A unanimous agreement of the Executive Committee shall be required for project approval. Once the project is approved, conditions shall be prepared detailing, where applicable, terms to be abided by during project implementation.

e) Record of Decision

When review of EIA documents is completed, the Authority shall decide to either approve the project with or without conditions, or reject it. A Record of Decision shall be prepared by the Authority (Executive Committee) and issued to the developer. If the project is approved, the developer will be issued with an EIA Certificate of Authorization, which permits implementation of the project in accordance with mitigation measures in the EIA Report and any additional conditions as the Authority might consider necessary.

f) Implementation and Operations Order (IOO)

After a Record of Decision approving project implementation has been made, the Authority shall issue to the developer, an Implementation and Operations Order (IOO). This legal order specifies compliance terms and conditions to be met during project implementation and operation. These conditions based on information from the EIA Report and Public Hearing Report shall indicate requirements for implementation, impact mitigation and environmental monitoring. An EIA Certificate of Authorization granting permission to begin development shall not be issued until a developer agrees to these conditions.

g) EIA Certificate of Authorization

The Authority shall issue a Certificate of Authorisation after a proposed project is approved, with conditions that the developer is required to comply with. This document is legally binding and authorises the developer to implement a proposed project, subject to any terms and conditions stipulated. Except in cases of appeals, the Authority is the final decision-making agency with power over issuance of EIA Certificates of Authorization.

4.4 Key Areas of Focus in the EIA for Petrol Stations and Petroleum Depots

4.4.1 Fire and Other Safety Considerations

Management of fire and other safety considerations are the responsibility of the operator of the petrol and oil station. On a routine basis, as prescribed in the environmental management plan (EMP), the proprietor of the station should hire Environmental Auditors to carry out environmental audits in accordance with the EA Guidelines.

The EA Experts should check that the petrol and oil stations:

- Have adequate fire detection, fire fighting and fire suppression capability. These can be in-house or sourced from a specialist firm.
- All construction, equipment and electrical cabling comply with the relevant insulation and fire resistance standards.

- All employees should are trained in fire detection and fire fighting. Signage indicating clear instructions for 'no smoking', 'keep clear – fuel discharge in progress', 'fire assembly point' etc. should be prominently displayed. They should be written in simple graphic illustrations so that a broad range of station clients can understand them.
- Fire fighting equipment should be regularly serviced. It should be inspected and certified by a competent local or urban authority.

4.4.2 Occupational Health and Safety

Oil and Petrol station operations involve handling and/ or getting in contact with potentially hazardous machines/equipment, materials and substances that can put the health and safety of workers at risk. Workers are critical to ensuring that the station operates in a safe manner. They should, therefore, be protected from work related dangers such as exposure to petroleum fumes, poisonous gases, corrosive chemicals, electrical hazards, fires and falling objects. Precautions in this respect are therefore paramount.

- It is the responsibility of the station operator to prepare and implement an occupational health and safety (OSHA) and quality policy. One or more staff could be given responsibility to oversee the implementation of the OSHA and quality policy at the station level and overall in the company's stations. The EIA experts should ensure that the Developer has a sound OSHA and quality policy for the station;
- It is the responsibility of the station operator to ensure that each worker has personal protective wear and equipment (PPE) and to ensure that they are trained and equipped for foreseeable emergencies;
- The operator of the station should have methods of enforcing sobriety at work at all times, ensuring that the workers are not under the influence of drugs and alcohol when they are on duty.
- The operator must have clear penalties for employees who violate the OSHA regulations and credit those that abide by them at all times.
- Emergency treatment and evacuations processes are required at all stations; these can be outsourced to a local services provider such as a hospital or ambulance service. Emergency numbers to the police and ambulance services should be clearly displayed. Each station must have an emergency treatment kit and the employees should be trained on how to use it.
- All stations should have emergency assembly areas, which should be clearly marked, where employees and clients should assemble in case of emergency or any eventuality at the station.

4.4.3 Storage of Products and Equipment

It is the responsibility of the station operator to ensure that all products are stored safely and securely. During the EIA, the Expert shall review the storage procedures and processes.

Petrol, diesel and kerosene should be stored in underground tanks of approved design in accordance with the relevant national Standards. Refilling the tanks must be done clear of spectators and station clients. Only persons authorized to be in the fuel discharge area may be present in that area.

Lubricants should be stored in appropriate plastic or metallic cans, drums or caskets to ensure that there is no spillage. They should be kept under conditions specified by the manufacturer regarding exposure to heat, cold, inclement weather and sunlight.

Stores must be secured to ensure that unauthorized access is minimized and arson is prevented.

4.4.4 Waste Collection, Storage and Disposal

The station operator is responsible for the collection, storage and disposal of both domestic and hazardous waste. Waste generated from petrol and oil stations includes solid waste, petroleum product waste and sanitary waste. Some gaseous emissions are also expected. Waste should be sorted out into domestic (biodegradable) waste; glass; plastics; and hazardous petroleum waste.

It is the responsibility of the station operator to ensure that all wastes are collected, stored and disposed of in accordance with the regulations of the local authority.

Petroleum product wastes, such as used oil, oil spills and waste lubricants must be collected and the area cleaned up using acceptable detergents. These wastes may be stored in drums and sent for burning or burial in accordance with the law.

The developer should be aware of the 'Ministerial Order No. 003/16.01 of 15/07/2010 Preventing Activities that Pollute the Atmosphere', which gives the environment police and REMA the powers to enter the polluting entity, seize equipment and close the entity. That Ministerial Order also has tolerances of certain gaseous emissions.

Oil wastes must be removed using a separator before the effluent is discharged into the public sewer system or into a septic tank.

Storm water is an important discharge from petrol and oil stations since most of the station area is paved. Waste should be drained into the public drains, avoiding creating too much erosion of the kerbs and drains.

4.4.5 Maintenance of Records

Records of Petrol and Oil Receipts and Sales: The operator of the petrol and oil station should keep records of receipt of products and sales. They may be required during the annual environmental audit by REMA. The source of the products is also important.

Records of Losses, Waste and Spillage: Records of losses of whatever nature, wastes generated and spillage of products should be kept, including accidental discharge of products into the public sewerage system.

Water, Air and Soil Quality Records: The operator of the station shall keep records of water, air and soil quality for comparison with the baseline values. The frequency of the tests required will be determined by REMA on the basis of the actual or suspected pollution of the water, air or soil by the station. The Environmental Audit Expert shall compare the test results with those in the baseline before construction of the station in the area. Where unexpected values (too high or too low) are obtained, the Expert shall investigate the cause of the variation and may recommend corrective action in the Environmental Audit Report.

4.4.6 Monitoring and Reporting Requirements

The station operator is obliged to prepare regular environmental reports on the station operations to REMA. In accordance with the EIA Guidelines, the operator of the station is required to submit regular reports for the monitoring of the environmental plan (EMP) prepared as part of the EIA process. Section 2.1.6.9 of the Guidelines gives which also empower self-auditing by the developer. Notwithstanding any licence, permit or approval granted under any law or government agency, projects found to be non-compliant shall be charged with an offence, penalised, have its EIA Certificate of Authorization withdrawn and can be temporarily or permanently closed.

4.4.7 Adherence to Standards for Petrol and Oil Stations and Depots

The developers of petrol and oil stations and depots must abide by the required standards of Rwanda as published by the Rwanda Bureau of Standards (RBS). For the operation phase, some of the key environmental practices to follow at petrol stations are summarised in table 3 below.

Table 3: Summary of Key Environmental Guides for Petrol Station Operations

These standards may be used as checklists to assess compliance by Petrol station operators.

	Operation	Precaution/ Action for Environmental Standard	Notes
1	Vehicle Fuelling	✓ Mop small spills (less than 1 litre) from surfaced driveways immediately to prevent contamination of storm water runoff. Use dry sand or saw dust to soak up spill. Do not use water as this will spread the oil or fuel spill. ✓ Restrict spillage on driveway during filling and confine to appropriately designed and well maintained sumps where present.	
2	Tank Maintenance & Fuel Delivery	✓ Solvents used for cleaning and the resultant effluent must not be allowed to enter storm water drains, septic tanks or any other natural water bodies (e.g. streams, wetlands, ponds, lakes). Effluent must pass through an oil interceptor and sand trap into the local sewer. ✓ As much as possible, avoid delivery and filling of tanks at peak traffic periods ✓ Avoid spillage (through connecting, disconnecting) or over-filling) during delivery by properly training staff.	
3	Vehicle repair	✓ Control use of substance used for parts washing, including detergents and dispose of through an oil interceptor and sand trap into the local sewer; ✓ Use and stock only "ozone friendly" propellants ✓ Limit noise by using appropriate panel beating equipment & methods ✓ Prevent spillage of toxic and/or corrosive substances used in vehicle servicing; ✓ Discarded parts and scrap material should be stored in an appropriate location ✓ Restrict unnecessary running of engines to prevent high levels of harmful gaseous emissions	
4	Car Washing	✓ Use only non toxic and non corrosive detergents; ✓ Avoid using foaming agents that are not biodegradable ✓ Collect waste water and ensure that it passes through oil separation and sand traps	
5	Drainage system	✓ Regularly clean out all sand traps, galleys and drainage channels to ensure free-flow of water effluent; ✓ Arrange for petroleum/oil interceptors to be cleaned regularly (at least six-monthly) and after a spill;	
6	Equipment Maintenance	✓ Ensure optimum functioning of workshop machinery such as compressor and car wash to limit noise levels and vibration ✓ Prevent leakage of pumps, valves, taps and other equipment by regular inspection and repair	
7	Vehicle & Human Traffic control	✓ Do not allow vehicles to idle unnecessarily- dedicate staff to direct vehicle traffic; ✓ Ensure that directional markings on driveway are clear (to prevent congestion and mal-parking, accidents). ✓ Watch out for idle people whether one or in groups. Place warning signs for idlers.	
8	Waste storage, interception & removal	✓ Sort all waste originating from the workshop (e.g. scrap metal, discarded parts, tyres, metal/plastic/paper containers, air, fuel & oil filters, batteries and other corrosive substances); Recycle as possible. ✓ All waste oil should be regarded as harmful. Approved storage for	

	Operation	Precaution/ Action for Environmental Standard	Notes
		waste oil should be provided and arrangements made for disposal; ✓ Avoid burning wastes; Organic waste may be buried if necessary ✓ Pit sludge should be cleaned out and stored for collection and proper disposal. Do not dispose of in storm water drains, sewers, septic tanks or storm water drains ✓ Prevent foreign materials from entering septic tank systems e.g. large volumes of detergents; elect notices in toilets serviced by septic tank to warn public not to deposit foreign substances or objects	
9	Litter control	✓ Where possible, provide litter bags for customers to keep in vehicles ✓ Provide waste bins of appropriate designs; ✓ Provide containers for recyclable items	
	Energy management	✓ Lightening is a high energy user and should be managed by replacing lamps to match those originally fitted and with time switches on those circuits not required during certain periods; ✓ Heating and cooling equipment should be properly maintained, and vents, grills and filters kept clean through a regular housekeeping programme	
	Product storage	✓ Inflammable substances should be stored separately, away from electrical installations, etc. ✓ Keep toxic substances out of reach of children ✓ Avoid spillage through proper handling.	
	Housekeeping/Building maintenance	✓ Regularly inspect paving at filling points for impermeability; ✓ Ensure that fire fighting equipment are adequate and regularly serviced ✓ Maintain strict Oder control policy (e.g. fuel vapours, sewage vents, toilets,	

4.4.8 Routine Inspection by Competent Authorities

In accordance with the Environment Management Plan (EMP), REMA or its authorized agents may inspect the station to verify compliance and to respond to specific complaints against the operations of the station.

The station operator will be given the statutory notice in accordance with the EIA Guidelines, the Environmental Audit Regulations and the Ministerial Order on the Inspection of Polluting Companies, 2008, of 48 hours before the inspection.

Inspection shall be undertaken in accordance with the Ministerial Order of 2008 and the findings handed over to REMA to make a decision. The operator shall have a right to appeal an adverse finding in the manner prescribed in the Ministerial Order.

4.4.9 Project Decommissioning or Relocation

Upon project completion or when seeking relocation, a developer should prepare a decommissioning plan and submit it to REMA for approval. The decommissioning plan should include but not limited to assessment of existing environmental conditions, all proposed engineering works, mitigation activities associated with the removal of project facilities and proposed restoration measures.

Where REMA and other agencies have determined that the location or the violations of the petrol and oil station or depot have become unacceptable, an order shall be made to close the station or depot. The order shall include restoration of the area in accordance with the relevant laws.

4.5 Conducting Public Hearings: Purpose, Procedure and Participation

This section provides the *Why*, *How*, *Who, When* and *Where*, of organising and conducting public hearings, and incorporating the resulting views and resolutions into the EIA report and EMP for the Oil and petrol station projects.

4.5.1 Purpose of a Public Hearing

Public participation in EIA is a systematic way to obtain public involvement in the planning, development and decision making process. Public participation is considered as a valuable source of information on potential impacts, mitigation measures and viable alternatives, especially since local communities often have better knowledge of the local environment and have vested interests that need to be taken into project design.

Public hearings are conducted to inform stakeholders about development projects, obtain their input and use the information in decision-making regarding project approval. Public participation aims at improving project design, environmental soundness and social acceptability. The rationale is that when people are informed about projects and empowered to invoke changes, their concerns reduce and are more receptive to proposed developments.

Using this knowledge, developers can often obtain foresight into potential consequences of a project, hence devise ways to minimise adverse impacts and enhance potential benefits. Through public participation, stakeholders help define environmental concerns of a project and suggest alternatives to be assessed.

Lastly, involving local communities will broaden their understanding of the project, enabling them to play an effective role in monitoring and ensuring compliance to mitigation measures proposed in the EIR. The public will also become increasingly aware of environmental sustainability issues and gain a sense of public responsibility for their environment.

4.5.2 Who should be involved

The range of individuals, agencies and organizations to be involved in public hearings should include as a minimum: government ministries likely to have their areas of responsibilities affected by the proposal, local government bodies responsible for the area where a project is proposed, private sector organizations such as trade associations, general public, local communities and NGOs.

4.5.3 Levels of Public Involvement

There are three major stages at which public involvement occurs in the EIA process:

1. Public consultation before commencing an EIA study

After receiving the Project Brief from the developer, the Authority, in consultation with the lead agency, shall determine whether a public hearing is necessary. RDB shall then notify the developer about its intent of publishing the Project Brief (or its summary) together with relevant supporting documents in a public notice. Objections and comments from the public and other stakeholders shall then be submitted to RDB, REMA and to a relevant Lead Agency.

In certain circumstances, it may be necessary to meet stakeholders or local community expected to attend a public hearing so as to explain procedures and issues that will be brought up during the public hearing. Such pre-hearing meetings and consultations should be held at least three days before the date of a public hearing.

2. Public consultation during an environmental impact study

During an environmental impact study, EIA Experts shall seek views of persons who may be affected by the project. This will be done particularly during the scoping process and at any other crucial stages considered necessary by the Authority. Consulting the public during an impact study is important in identifying issues and impacts considered important by local communities. Identifying and addressing pertinent issues early will avoid difficulties during subsequent public review of the EIA report.

3. Public consultation after completion of the EIA report

After submitting an EIA report to the Authority, it shall be a public document and any person can access it, except for that information which a developer asked to be maintained confidential.

The Authority shall publicize the report (excluding the confidential portions) to the public together with locations where it would be available for public viewing. The Authority shall also make copies of the EIR for relevant stakeholders.

4. Notification of public hearing to the public

Prior to the public hearing, the Authority shall notify the public about the proposed development, Environmental Impact Report (EIR) and impending public hearing.

Notice to the public shall be made through all of the following means:

i) Posting public posters in strategic places around the proposed site,
ii) ii) Publishing a notice about the project for one week in a nationwide newspaper,
iii) Announcements of the notice in *Kinyarwanda*, English and French on national radio at least once a week for two consecutive weeks,

iv) Hold at least three public meetings with the affected parties and communities to explain the project and its effects in order to receive their comments,
v) Send appropriate notices at least once per week prior to the meetings concerning venue and time of the meeting in order to ensure that the specified time is acceptable to the affected stakeholders.

4.5.4 Mechanisms for Public participation

While methods of public participation will depend on circumstances of each EIA, the following are considered appropriate:

i) Public review of Environmental Impact Report,
ii) ii) Informal group meetings with local community groups and leaders,
iii) Workshops,
iv) Public displays or bulletin boards posted in communities,
v) Public notification and calls for written comments on proposed project/activities,
vi) Participation in scoping processes,
vii) Survey of a groups or individuals who are representative of the various interests being affected by a proposal,
viii) Consultation with focus groups to identify issues specific to certain stakeholders,
ix) Comment and review of the EIA,
x) Distribution of relevant documents to the interested members of the public.

4.5.5. Location for Public Hearings

Where a single public hearing will be held, it shall occur within the community nearest to the site of proposed development. In rural settings, public hearings should occur in a location where attendance by stakeholders is relatively easy and the variety of views by stakeholders can be maximized. This location may be a local community centre, a central market area, government administrative building or outdoor venues that can accommodate large numbers of people.

Public Hearing Panel: ***Table 0*** shows people who shall comprise the public hearing panel and their roles:

Table 0 Public hearing participants and their roles.

Person	Agency	Role(s)
Presiding Chair	RDB	Presides over all decisions at public hearing sessions.
Secretary	REMA	Records minutes, registers presenter list, act as timekeeper responsible for monitoring presentation times allocated to speakers.
EIA Specialist	REMA	Outlines findings of the environmental impact study.
Developer or Representative	Developer	Give presentation on project, respond to presentations, and answer questions.
Representative	Lead Agency	Respond to presentations and questions (MINICOM, MININFRA & RURA)
Translator	Developer	Language translation and facilitate communication during the hearing.

4.5.6 Public Hearing Report

After completion of independent consultations and a transcribed account of the public hearing has been finalised, the presiding chair shall produce a final report to REMA, lead agency/ies and the developer. The Public Hearing Report (PHR) will be passed to the Technical Committee of REMA. The report shall contain a summary of proceedings of the public hearing including all facts, concerns and views presented. The report shall also include recommendations made by the presiding chair to the Technical Committee basing on outcome of the public hearing. The report will include a list of persons in attendance on the hearing panel, a list of names and affiliations of all stakeholders including ones who gave both registered and informal presentations. This document will remain confidential until after the Technical Committee has produced their record of decision (RoD).

4.5.7 EIR Decision Making and Pursuant Requirements

When the authority publicises an EIA report for public review, the public shall forward written comments to the Authority and if it is satisfied with the written comments, the authority shall after consultation with the Lead Agencies, take them into consideration when reviewing the EIR.
Once the authority is satisfied with particular concerns of the public, it shall require the developer to carry out a more in-depth study of specific aspects of contention in order to take into account all the necessary measures to address the issues raised by the public. Where a Lead Agency or government ministry/department is the developer, the same process and requirements will hold. The authority will present the written requirements concerning necessary steps to address issues of mitigation and compliance to the ministry/department undertaking the development project.

4.5.8 Other Administrative Issues

- **Presence of Legal Counsel:** During public hearings, any stakeholder who wishes to include a legal counsel or EIA expert as either the principal or secondary speaker of a presentation may do so. This privilege will also be extended to members of REMA, Lead Agencies and the developer.
- **Adjournments and Extensions**: The presiding chair reserves the right to adjourn or extend a public hearing. Once a public hearing is adjourned it may, by decision of the presiding chair or REMA, be reopened at any time before the final submission of the Public Hearing Report to REMA. After submission of the Public Hearing Report to REMA by the presiding chair, no other public hearing will be held. *Although the presiding chair reserves the authority for adjournment, no public hearing shall conclude in less than three hours*.
- **Media Coverage:** Unless objected to by the presiding chair through a written statement to REMA, full media coverage of public hearings by print media, radio and television shall

be permitted. In cases where the presiding chair feels that television or radio coverage may inhibit presence or presentation by stakeholders, these media devices will be prohibited. However reporters shall not leave the public hearings. Newspaper reporters will be allowed unfettered access to public hearings unless their presence causes undue distraction to the proceedings. All media interviews with stakeholders or members of the hearing panel will be limited to break periods and after the hearing has adjourned.

- **Constraints to Public Participation**: It is important that persons or entities organizing and conducting public hearings are aware of factors that may constraint full participation of some key stakeholders. For instance, where minority groups are identified but provisions cannot be made for their involvement, this lack of input should be considered during review of the EIR and when taking decisions regarding the project.

ANNEXTURES

ANNEX 1: Outline Content of a Petrol and Oil Station EIA Report

The Petrol Station EIA Report has the following objectives:

a) To enable the developer to plan, design and implement mitigation measures for significant adverse environmental impacts and to maximise social benefits from a proposed project.
b) For the decision-makers (licensing bodies, regulating authorities) to objectively evaluate the proposed project.
c) To provide information on environmental impacts and mitigation measures for local communities and any other stakeholders to be able to contribute their opinions.

The EIA report should entail:

i) **Executive summary** of the EIA report which should be brief and only include:
- Name and location of the project;
- Name of the developer;
- Name of the agency preparing the EIA report;
- Main impacts identified;
- Mitigation recommendations;
- Environmental monitoring plan.

ii) **Objectives of the project**, including ideas, intentions and particular objectives.

iii) **Description of the proposal and its alternatives**. In this part, it is necessary to describe in detail the proposed project and its alternatives including those not subjected to prefeasibility study or feasibility study. Attention should be concentrated to the comparison of different alternatives. The following are the required contents of the section "*Description of the proposal and its alternatives*":
- The stage of the project cycle where the project is being implemented (pre-feasibility study, feasibility study or design);
- Outlines of the plan for impact prediction and mitigation measures;
- Raw materials, supplies, energy, water and equipment to be used for implementing the project and its alternatives;
- Operational parameters such as capacity and product output;
- Tables, photographs, diagrams and maps;
- Comparison of characteristics of alternatives (extent, location, technology, products, energy and raw materials demands) in the present socio-economic, technical and environmental situation;
- A summary of project technical, economic and environmental characteristics.

iv) **Discussion on the proposal and its relation to relevant policy, legal and programmes** (sectoral and regional). In this section, the proposal must be aligned with policies, laws, institutional framework and development strategy of Rwanda.

v) **Description of present (baseline) environmental state (analysis of initial state)**. In this section, the environment in the project area should be appropriately described. The following aspects should be presented:
   - Environmental baseline conditions (natural and socio-economic);
   - Sensitivity and values (cultural, aesthetic) of environment in the project area.

vi) **Impact assessment**. In this section, the spatial and temporal scope of the impacts and characteristics of different impacts (whether positive or negative, direct or indirect, their intensity, extent and significance) should be presented for the project and also for all alternatives considered. The following aspects should be presented:
   - Assessment of all impacts to the local population;
   - Environmental database, study methods and assumptions;
   - Limitations and reliability of the data and study results;
   - Compliance with the environmental standards and license issuing procedures;
   - Significance of impacts, criteria and standards used to determine the impact significance;
   - Measures to avoid and mitigate impacts.

   In this section, methods of data collection, methods and criteria used for assessing degree of danger and significance of impacts must be indicated. Cumulative impacts must be emphasised. A summary table of impacts for each alternative should be provided.

vii) **Evaluation and comparison of alternatives** and selection of one that is environmentally suitable. The main content of this section is the comparison of the main positive and negative impacts, impact mitigation and monitoring measures of alternatives. The environmentally suitable alternative is determined based on the following aspects:
   - *Impacts with largest effects, measures for avoiding, mitigating and managing them;*
   - *Impacts for which the developer has committed to take prevention measures and unavoidable impacts;*
   - *Allocation of cost and benefit between levels, partners and population of the project area;*
   - *Information on protection measures or resettlement, acquiring opinions of the public;*
   - *Environmental improvement opportunities.*

viii) **Impact management and environmental monitoring plan (EMP)**. This is a plan for monitoring and management of impacts during the implementation and operation of the project, where the responsibilities between the developer and Government are differentiated. The EMP should include:
   - Description of mitigation measures;
   - Implementation schedule including indicators, costs, etc.;
   - Assignment of responsibility for implementation;
   - Monitoring of implementation;
   - Report on evaluation of implementing such the plan.

ix) **Annexes** where tables, drawings, maps, documents and information used as reference should be presented.

Appendix 2: Sample Terms of Reference for conducting an EIA Report for Establishment of a Petrol/Oil Station

(Modified from the EIA Guidelines of Rwanda, 2006)

1. INTRODUCTION

(Name of developer) has applied to Rwanda Environment Management Authority (REMA) to carry out an environment impact assessment (EIA) for the proposed *(name of project)* in accordance with *requirements* of EIA Regulations of the Republic of Rwanda. *(Name of developer)* intends that the proposed project will incorporate all practical and cost-effective measures for avoiding or minimizing negative environmental impacts, for capturing environmental benefits and for ensuring sound environmental management. Thus, the purpose of the EIA study is twofold:

- To provide *(developer's name)* with advice on how project design can avoid or mitigate negative impacts and to enhance anticipated environmental benefits; and
- To prepare for review by REMA, an EIA Report and Environmental Management Plan (EMP) according to Rwanda EIA Guidelines and Regulations, 2006.

The following are *specific* issues to address in the EIA study:

2. PROJECT DESCRIPTION

The EIA Experts should provide a description of proposed project and any alternatives being considered in sufficient detail to benefit stakeholders and decision-makers. Policies, legislation, regulations directly relevant to the proposed project should be discussed in the EIA Report.

3. ENVIRONMENTAL CONCERNS TO BE ADDRESSED IN THE EIA

The following are the key biophysical, resource use, and socioeconomic issues to be addressed by the EIA study (see the scoping checklist for details):

- Services offered at the station
- Location of the station
- Facilities to be included in the station
- Water resources infrastructure needed
- Water treatment requirements
- Drainage system requirements
- Power supply
- Sewage disposal system
- Wastewater treatment facility
- Used oil collection and disposal system

- Solid waste collection and disposal
- Manpower and employment
- Impacts on the physical environment:
  - project site elevation;
  - topography;
  - soil erosion;
  - occurrence of landslides;
  - flooding; soil type;
  - existing water bodies within and nearby;
  - access roads;
  - present land use/zoning;
  - land allocation and alignment of utilities
  - existing structures
- Biological environment:
  - Flora and fauna in the area
  - Fishery resources
  - Gazetted /reserved land
  - Proximity to natural ecosystems
- Socioeconomic environment:
  - Existing settlements and population of the area
  - Livelihood sources for the present population
  - Levels of education of the present population
  - Organised groups
  - Local social infrastructure e.g. schools, health centres, churches, roads, etc.
- Pre-construction impacts
  - Clearing of vegetation
  - Cutting of trees
  - Demolition of existing structures
  - Removal and deposition of topsoil
  - Earth moving activities
  - Planting of ornamental trees
  - Stockpiling of soil, sand and gravel
  - Drilling, boring and hammering activities
  - Modification of slopes
  - Construction of field offices/barracks for workers
  - Clearing of vegetation and impacts on rare and endangered species
  - Compensation of owners of the land

    - Archaeological and ancestral land holdings
    - Recruitment of local labour for construction
    - Traffic increases/disruption
- Operation and maintenance
    - Solid waste
    - Demand for water
    - Drainage issues
    - Sewage issues
    - Waste disposal
    - Traffic management
- Abandonment and rehabilitation
    - Traffic
    - Population migration into the area
    - Water supply etc.

While the impact study is to be focused on the above issues, the EIA Experts may, in the course of the impact study, identify further concerns which should be investigated. Any such other issues should be brought to the attention of REMA and *(developer's name)*.

4. ENVIRONMENTAL MANAGEMENT

The EIA Experts should pay particular attention to identifying and recommending measures or practices for avoiding, mitigating or managing negative impacts of the project and for enhancing potential environmental and socio-economic benefits. Any potential measures or practices identified by the EIA Experts should be brought to the attention of *(developer's name)* for possible inclusion in project design and planning.

In particular, the EIA Experts should prepare an Environmental Management Plan (EMP) for *construction*, *operation* and *decommissioning* of the project. The EIA Expert should estimate the costs of implementing this plan, including all capital, operating and training costs.

5. RELATIONSHIP OF EIA TO PROJECT PLANNING AND DESIGN

To maximize opportunity for good environmental planning and design of the project, EIA Experts should work closely with *(developer's name)* to offer feasible options to enhance the project's environmental performance.

6. PUBLIC CONSULTATION

(Developer's name) is obliged to ensure that all concerned public and private stakeholders in the project have adequate input during the EIA study. The EIA Experts should therefore undertake comprehensive consultation with the local community, relevant lead agencies such

as (*provide examples of agencies REMA identified or that took part in formulating ToR)* in addition to any relevant stakeholders identified when conducting the impact study.

7. CONTENT OF THE EIA REPORT

At minimum, the EIA report produced by EIA Experts should contain information outlined in the Appendix 3 of Environmental Impact Assessment Guidelines (2006).

8. REPORTING REQUIREMENTS

The EIA Experts should submit a final EIA report including Environmental Management Plan (EMP) to *(developer's name) w*ho after reviewing appending an EIA Report Addendum to it, if necessary, will submit *(number)* copies of the final draft report to REMA.

The EIA Experts and developer should be available for discussions about the EIA Report with REMA and participate in any public hearings organised by the Authority.

ANNEX 3: SCOPING CHECKLIST FOR PETROL STATIONS

1.0 CONTENTS

This Scoping Checklist is divided into four (4) major sections:

- **Section 1**: consists of the information regarding the developer;
- **Section 2**: project location, plan/design components and activities during the development and operation phase; contains project components
- **Section 3**: consists of the information regarding the description of the existing environmental condition where the petrol station will be located – the physical biological, socio-cultural and economic environment;
- **Section 4**: consists of the listing of possible potential impacts that may occur in the various stages of the project establishment and operation; corresponding mitigation and enhancement measures to prevent the occurrence of adverse impacts and strengthen the positive effects of the project;
- **Section 5**: contains the Effluent Monitoring Plan
- **Section 6**: contains the Environmental Management Plan
- **Section 7**: provides the commitment of the developer to follow the mitigation and enhancement measures indicated.
- **Annexes**: consists of the additional information that required to be incorporated.

2. INSTRUCTIONS AND PROCEDURES FOR USE

2.1 The checklist need not be completed by an EIA Expert hired by the developer;

2.2 Answer questions by selecting from a list of pre-determined answers enclosed in the box. To use this, put a check (√) mark in the appropriate box. If your answer does not fall in any of the pre-determined responses, check (√) OTHERS and indicate your specific answer in the blank space provided or use additional sheets as necessary. If some questions are not applicable to your project, write N/A on the blank space or column;

2.3 For the section on Impact Assessment and Mitigation, check (√) the columns of Yes or No depending on what expected impact is applicable to your project and provide the corresponding Mitigation/Enhancement measures for each identified impact (with a YES answer) in the column provided.

2.4 To facilitate and assist the developer in answering Section 4.0 of this checklist, a menu is provided to serve as a guide and reference. However, it should be noted that this only serves as a menu checklist hence, developers are highly encouraged to identify additional impacts and mitigation/enhancement measures other than those provided in the menu;

2.5 For the section on Attachment or Annexes, put a check (√) on the title or description of the document that you are annexing in the report. The listed documents are MUST requirements and should be submitted;

2.6 Answers to the questions should not be strictly confined to the pre-determined responses. You can elaborate and use as many additional sheets as you need to be able to provide adequate answers to the required information. Providing maps, pictures and drawings (e.g. charts, tables, diagrams, sketches) and other visuals and attachments will better explain or describe the information provided in the checklist. This will help facilitate the review and decision on the project's application for an approval by REMA / RDB.

2.7 All relevant engineering / architectural drawings / plans (duly signed by a licensed architect / engineer / environmental planner) and permits required should form part of the supporting documents. This would include, among others, the following:

- ✓ *Site development plan showing the proposed layout of streets, lots and other features in relation to existing condition;*
- ✓ *Vicinity map within a radius of 2 km from the periphery of the project at a scale of 1:5000 m.*
- ✓ *Topographic plan of the project site.*

2.8 Upon completion of the scoping checklist, the project developer shall submit the forms and attachments to REMA / RDB.

Annex 4: ENVIRONMENTAL SCREENING CHECKLIST *for* PETROL AND OIL STATION PROJECTS AND PETROLEUM DEPOTS

SECTION 1.0: GENERAL INFORMATION

1.1 Project Name/Title: _____

1.2. Developer/Company: _____

Address: _____

(Complete address: street, city/municipality, province)

_____

Tel/Fax: _____

E-mail:_____

1.3 Project Location: _____

(complete address: street, city/municipality, province)

(Attach location map with important landmarks and access points indicated as Annex 1)

1.4 Project Category: □ Service Station
□ Filling Station
□ Curb Pump

1.5 Project Cost

Total Project Cost: (Range) ☐

(civil works and equipment)

1.6 Project Ownership:

Type of Owners: □ Single Proprietorship □ Corporation
□ Partnership/Joint Venture □ Cooperative
□ Others, please specify: _____

1.7 List of Owners (for partnership/ corporation) _____

SECTION 2.0: PROJECT DESCRIPTION

2.1 Project Area Coverage

(Attach photocopies of documents as Annex 2)

Total Land Area (m^2/ha) ☐

2.2 Land Ownership

☐ Ownership of the land by virtue of (state mode of ownership) _____

Stewardship of land by virtue of: _____
Lease of Land by virtue of: _____
Pending Application for: _____
Others, please specify: _____

2.2 General Land Classification

□ Public land □ Alienable and Disposable

2.3 Present Land Use Classification (based on the approved land use/zoning ordinance of the city/municipality)

□ Agricultural □ Residential □ Tourism

□ Industrial □ Forest Land □ Institutional
□ Commercial □ Open Spaces
□ Others: Please Specify:

_____
_____
_____

Attach panoramic view of the project site and its immediate vicinity (north side view *from center of the project site). Add a descriptive caption.*

Attach panoramic view of the project site and its immediate vicinity (south side view *from center of the project site). Add a descriptive caption.*

3 PROJECT COMPONENTS

3.1 Services

Services	Vehicles per Day	Chemicals to be used	Volume of Chemicals to be used (liters per day)	Vol. of Water to be used (liters per day)
1. Manual Washing				
2. Automatic Car Wash				
3. Shampoo/Vacuum				
4. Oil Change				
5. Greasing				
6. Coolant Change				
7. Tune-up				
8. Wheel Alignment				
9. Free Service (Air & Water)				
10. Others, please specify				

3.2 Facilities

Facility	No. of Units	Area (m^2)	Capacity
1. Service Bay			
2. Pumping/Refilling Station			
3. Dispensing Pump for fuelling position			
4. Fuel Storage Area			
5. Washing Bay			
6. Convenience Store			
7. Stand-By Power Utilities			
8. Parking Area			
9. Office Building			
10. Public Toilets			
11. Others, please specify			

(Attach facilities design / lay-out plan) and General lay-out plan of the petrol station.

3.3 Water Resources and Infrastructure

a. Demand

Estimated daily water requirements of the proposed petrol station ☐

b. Supply/Sources

b.1. Existing Public Water

Water Source	Yes	No	Remarks
Existing Public Water			

b.2. Surface Water

Water Source	Name of Water Body	Location	Distance From the Site (km)	Mode of dev't. or distribution	Volume of Extraction
1. Creek					
2. Spring					
3. Stream					
4. River					
5. Others					

b.3. Deep Well

Water Source	No. of Wells / Hand Pumps/Tanks	Location	Depth (m)	Discharge (liter/ sec)
1. Deep Well w/ Manual Hand Pump				
2. Deep Well w/ Electric or Motor Pump				

b.4. Rainwater

Water Source	No. of Tanks / Reservoirs	Capacity
1. Collected in Storage Tanks		
2. Collected in Reservoir		

c. Water Treatment

Is there provision for water treatment of your independent water source?

☐ YES ☐ NO

If yes, what type of water treatment?

☐ Chlorinated ☐ Filtration ☐ Others (specify) _____

3.4 Drainage System (Attach approved drainage layout plan as Annex 3)

Type of drainage:

a) Major Roads: ☐ open canal ☐ closed / underground drainage

b) Other roads: ☐ open canal ☐ closed / underground drainage

Where does the drainage system drain?

☐ Public drainage system ☐ natural out fall / water body

What water body (e.g. river/creek/stream) will serve as the out fall of the sewage and drainage systems? _____
Where is this located: _____

3.5 Power Supply

Source of Power:

- ☐ National grid (Electrogaz)
- ☐ Own Generator Capacity:_____
- ☐ Others, pls. specify_____

3.6 Sewage Disposal System

- Sewage System ☐ Individual Septic Tank ☐ Communal Septic Tank

- Sewage Design
  - ☐ 2- chamber septic tank with leaching
  - ☐ 2-chamber septic tank without leaching
  - ☐ 3-chamber septic tank with leaching
  - ☐ 3-chamber septic tank without leaching
  - ☐ 4-chamber septic tank with leaching
  - ☐ 4-chamber septic tank without leaching
  - ☐ Others, please specify_____

(Attach sewage design / lay-out) signed and sealed.

- Sewage Disposal
  - ☐ Discharge to an existing public sewerage system
  - ☐ Community disposal plant or communal septic tank
  - ☐ Individual septic tanks with disposal by absorption field or leaching pit
  - ☐ Others: (Specify) _____

3.7 Wastewater Treatment Facility:

- Capacity of oil water separator: *(in litres)* ☐

Attach Flowchart on liquid waste management as Annex 4
Attach lay-out / detailed plan

- Liquid waste facility-main component
- Wastewater treatment facilities

3.8 Used Oil Collection and Disposal System

- Collection System No. Drums/month: _____

Volume: _____

Storage Area: _____

- Disposal System ☐ Recycled
  ☐ Burning / Incinerator
  ☐ Sold to recyclers
  ☐ Others, please specify

3.9 Solid Waste Disposal System

3.9.1. Collection System

☐ Association/project-maintained garbage collection system
☐ Integrated into the municipal garbage collection system
☐ Others, please specify:_____

3.9.2. Will there be a waste sorting/segregation system to be employed prior to disposal?

☐ YES ☐ NO

3.9.3. Disposal System

☐ Burning at open dumpsite in the project site
☐ Sludge cleaning
☐ Open dumpsite outside of the project site
☐ Municipal/city landfill area
☐ Others, please specify: _____

3.9.4. Location of the waste disposal site: _____

Attach flow plan of solid waste management – collection to disposal as Annex 5.

3.10. Manpower and Employment (provide listing of manpower requirements as Annex 6)

- How many people will be employed by the proposed petrol and service station during:

  a) Pre-construction Period: _____

  b) Construction Period: _____

  c) Operation and Maintenance period: _____

3.11. Project Schedule (Attach schedule of development activities from pre-construction; construction; operation phase) as Annex 7.

SECTION 3.0 DESCRIPTION OF EXISTING ENVIRONMENT

A 1. Physical Environment

Components/ Parameters	Yes	No	Remarks
1. What is the general elevation of the proposed *petrol station project site*? • <100 masl • 100-300 masl • 301-500 masl • 501-1,000 masl • 1,000-1,500 masl • >1,500 masl (To determine elevation, refer to the topographic map where the elevation per contour line is indicated)			(Indicate the area per elevation range or estimate the % to total area)
2. Slope and Topography of the area *(within 50 meter radius from center of site)* • Terrain is flat or level (0-3% slope) • Gently sloping/undulating (3-8% slope) • Undulating to rolling (8-18% slope) • Rolling to moderately steep (18-30% slope) • Steeply rolling (30-50% slope) • Very steep to mountainous (>50% slope)			(Indicate the area per slope category or estimate the % to total area)
3. Are there areas in the site where indications of soil erosion are occurring? If yes, what activities are causing erosion?			Causes of erosion: { } Heavy Rains { } Unstable Slopes { } Others, Please specify _____
4. Do you know of any landslide occurring or that has occurred in the site?			Cause of landslide: { } Earthquake { } Unstable slopes { } Earthmoving { } Others, Please specify_____

Attach photo of the areas topography (choose the view / perspective which shows contours or areas with slopes).

A 2. Physical Environment

Components/ Parameters	Yes	No	Remarks
1. Has the area experienced any flooding during the wet season? If yes, when was the last time the area was flooded? What caused the flooding?			Period(s) of flooding: _____ Causes of flooding: { } low area { } poor drainage { } water logged areas
2. Soil type of the area: { } Sandy soil { } Clayey soil { } Sandy loam soil			Other soil types: _____ _____
3. Are there existing water bodies found near or within the site e.g. creeks or streams? If yes, please enumerate them in the opposite space and indicate their location (If they have no names, indicate the number of water bodies) * these water bodies should be shown in the topographic map			Name of water bodies:
4. What are the present uses of the water bodies within or near the project site? { } Bathing { } Washing { } Fishing { } Source of drinking water { } Recreation { } Others: _____			
5. What is the present land use of the area wherein the proposed petrol and refueling station be located? { }Prime agricultural land (productive/irrigated) { } Prime agricultural land (idle/abandoned) { } Grassland { } Built-up { } Orchard { } Marshal/Mangrove { } Fishpond { } Others: please specify:_____			
6. Does the site conform to the approved land use of the city/municipality?			
7. Is the land allocation and alignment of the various utilities integrated with the existing networks and projects outside of the boundaries of the project site?			

Components/ Parameters	Yes	No	Remarks
8. Are there existing structures or developments around the project site? If yes, please list them in the opposite space			

B. Biological Environment

Components/ Parameters	Yes	No	Remarks
1. Are there any trees and other types of vegetation at the project site? If yes, please identify.			
2. Are there birds and other forms of wildlife found in the area? Please identify.			
3. Are there fishery resources in the water bodies found near or within the site? Please identify.			
4. Is the site near or within a watershed or forest reservation area? If near, only, how near? _____ m or km If within, indicate name and size of watershed or forest reserve			
5. Is the petrol station adjacent to a natural ecosystem? { } Forest { } Marine/aquatic { } Grassland/ rangeland { } Marshland (seasonal or permanent) { } Agriculture			

C. Socio-Economic Environment

Components/ Parameters	Yes	No	Remarks
1. Are there existing settlements near the proposed petrol station? If yes, indicate the number of: (within 50 m radius) Households/Families:_____ Legitimate landowners: _____ Tenants:_____ Squatters:_____			
2. What are their source(s) of livelihood? <u>Livelihood Type</u> [ ] Farming [ ] Fishing [ ] Backyard poultry and piggery [ ] Vending/Buy and Sell [ ] Formal employment [ ] Others, Please specify:_____			
3. How many of the total population have reached the: Elementary level:_____ High School Level:_____ College Level:_____			
4. Are there other existing local organizations in the area?			List of Organized

Components/ Parameters	Yes	No	Remarks
			Groups
5. Are there existing social infrastructures in the locality? [ ] Schools [ ] Communications [ ] Health centers/clinics [ ] Hospitals [ ] Churches/Chapel [ ] Transportation [ ] Roads [ ] Others, Please specify:_____			

(Attach photo)

SECTION 4.0: IMPACT ASSESSMENT AND MITIGATION

A. PRE-CONSTRUCTION/CONSTRUCTION PHASE *OF THE PROJECT SITE*

Project Activities Affecting the Physical Environment	***Yes***	***No***	***Impact Description***	***Mitigation and Enhancement measures***
1. Will there be land/vegetation clearing? If Yes, what is the total area to be cleared? _____(ha)				
2. Will there be trees to be affected during the clearing? If, Yes, how many and what speciess? No. of Trees: _____ Species: a. _____ b._____ c._____				
3. Will there be demolition of existing structures? If yes, what types of structures will be demolished? Types of Structures: _____ _____ _____				
4. Will there be topsoil removal and re-placement? If yes, how much of the removed topsoil will be replaced? [ ] Entire volume [ ] Partial only				
5. If partial only, where will the rest of the topsoil be deposited? _____ m^3				
6. If no, what will happen to the excavated topsoil? _____ _____				
7. Will there be earthmoving activities, e.g. excavation work, cut and fill, etc.? If, yes, how deep is the excavation and how much is the estimated volume of cut and fill? Average depth of excavation (m):_____ Estimated Volume of cut and fill (cum) _____ Source of filling materials? _____				
8. Will trees and ornamentals be planted in the site? Total # of trees to be planted: _____ Species: a. _____ b._____ c. _____ Ave height of trees to be planted: _____ (m)				
9. Will there be stockpiling of soil, sand and gravel materials in the project area?				
10. Will there be drillings, hammering and boring activities?				

Project Activities Affecting the Physical Environment	*Yes*	*No*	*Impact Description*	*Mitigation and Enhancement measures*
11. Will there be any slope modifications or ground leveling to be done?				
12. Is there a need to construct an access road going to the site? If Yes, what type of access road: [ ] all weather road length ____(m) width ___ [ ] concrete [ ] asphalt				
13. Will temporary quarters or barracks and a field office be provided for construction workers within the project site?				
14. Will there be vegetation clearing?				
15. Will clearing activities affect any critical wildlife habitats?				
16. Will clearing activities affect any rare, threatened or endangered plant and animal species?				
17. Will there be trees to be affected (e.g. cut down; remove) during the clearing? If yes, how many and what are these species of trees?				
18. Will there be settlements to be affected? If yes, how many households will be affected? Total No. of Household/Families: _____				
19. How will they be handled? Payment of property owners Temporary relocation site to be provided Permanent relocation site to be established Eviction w/o compensation Others, please specify: _____				
20. Will the project encroach on ancestral domain - Will indigenous or local people be affected; or other vulnerable groups				
21. Will there be locals to be hired during construction?				
22. Will there be an increase in economic activity in the area or arise in associated project?				
23. Will the project cause an increase in traffic or disrupt traffic in major routes due to the entry and exit of construction equipment?				

B. Operation and Maintenance Phase

Project Activities Affecting the Physical Environment	Yes	No	Impact Description	Mitigation/ enhancement measures
1. Will there be an increase is solid waste and sewage generation?				
2. Will there be an increase in water demand?				
3. Will there be an improved drainage and water supply system?				
4. Will there be an increase in surface run-off from the concreting of roads and soil surfaces?				
5. Will there be reduced infiltration rate due to impermeable structures over the ground?				
6. Is the available domestic water supply enough to meet the maximum projected water consumption of the petrol station?				
7. Will the sewage out fall and drainage system drain into the nearby or adjacent surface water body?				
8. Will the waste disposal site be adequate to meet the projected solid wastes in the area?				
9. Will the project cause or increase traffic in the areas?				
10. Will the petrol station create a significant increase in the existing population of the area?				
11. Are there existing transport services/facilities routing the areas?				
12. Is there a prevailing water shortage or water supply problem in the area?				
13. Are there existing commercial establishments within the vicinity of the project area?				

C. Abandonment and Rehabilitation Phase

Project Activities Affecting the Socio-Cultural and Economic Environment	Yes	No	Impact Description	Mitigation/ enhancement measures
1. Will the project cause or increase traffic in the areas?				
2. Is the petrol station creating a significant increase in the existing population of the area?				
3. Are there existing transport services/facilities routing the areas?				
4. Is there a prevailing water shortage or water supply problem in the area?				
5. Are there already existing commercial establishments within the vicinity of the project area?				

SECTION 5.0: EFFLUENT MONITORING PLAN

Effluent source	Parameters To Be Tested	Frequency Of Testing	Method Of Analysis	Standards For Class "C" Water Body

SECTION 6.0 ENVIRONMENTAL MANAGEMENT PLAN

Activities	Risks	Impacts	Mitigating/ Enhancement Measures	Cost	Responsibilities

SECTION 7.0 DEVELOPER'S COMMITMENTS:

Are you committing yourself to …	Y	N
I/We, am/are committing to ..... 1. Comply with existing environmental rules and regulations, guidelines and criteria; 2. Comply with all mitigation/enhancement measures that have been identified in the report; 3. Support multi-partite monitoring efforts to be organized; 4. Construct, maintain and properly operate an adequate and appropriate oil-water separator the liquid wastes; 5. Construct, maintain and properly operate an adequate and appropriate septic tank for the liquid wastes; 6. Maintain the cleanliness of the general surroundings; 7. Participate or contribute towards a communal cleaning effort; 8. Strictly implement a risk management plan and safety program; 9. Organize and conduct information, education and communication (IEC) activities on environmental, health and other civic issues; 10. Others, please Specify		

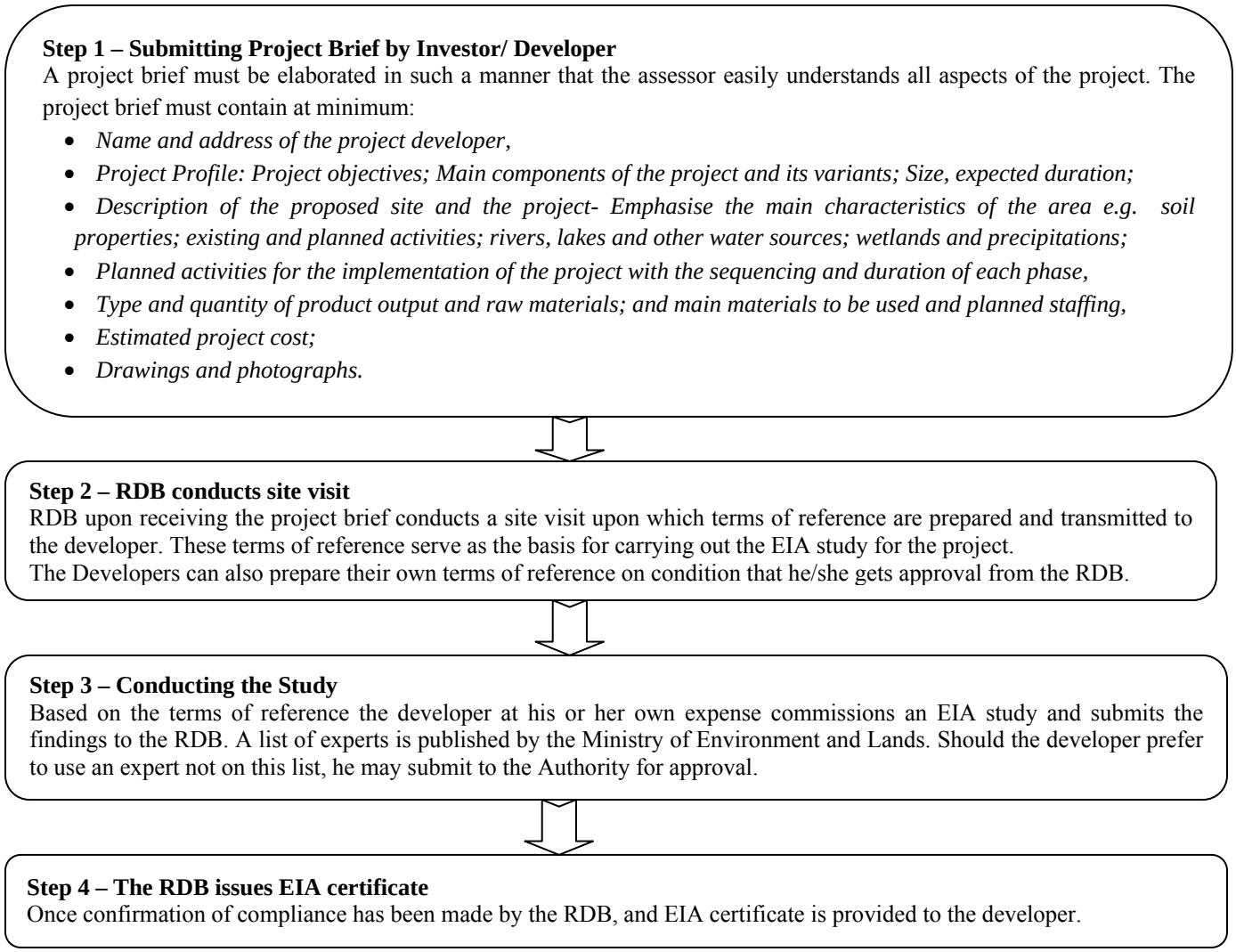
ATTACHMENTS/ANNEXES

A. Government Permits and Clearances (Attach photocopies of documents)

PERMITS/CLEARANCES	YES	NO
Location Map/Vicinity Map		
Town or Municipal / City Endorsement		
Photocopy of Lease or Land Title		
Design /Plan of the Petrol Station		
Locational Clearance from the Planning Authority		
MINICOM/RDB Permit		

ANNEX 5: Simplified Application Process (to RDB)

RDB has developed a three-step simplified version of the EIA process consistent with the EIA Guidelines, 2006 (RDB Infopack 2010-11). It's summarised as follows:



Timeframe for Obtaining the EIA Certificate

- RDB submits terms of reference to the developer for an EIA within 15 working days of the receipt of the project brief.
- RDB notifies the developer of its acceptance or refusal of the choice of experts within a period of five (5) working days after receipt of choice of team of experts. In case of refusal, RDB provides justification and recommends experts.

- Upon receipt of the EIA report, the RDB analyses the report to verify its conformity to the terms of reference. The Authority accepts to provide an EIA certificate or requests additional information from the developer within 20 days.
- If RDB deems it necessary, it provides a public hearing notification within 15 working days from the date of public notification.

Appealing a Decision

Where a project is not approved, a developer may appeal against the decision of the RDB to the Ministry of Environment and Lands with a copy to the Ministry responsible for Trade within 30 working days from the date of notification of the decision.

References

1. MINICOM (2010). *Isoko y'Ubukungu*. Sixth Edition. March-April 2012.

2. MININFRA 2004. Sector Strategy 2005 – 2010. Energy sector. April 2004

3. MININFRA 2004a. *Energy Policy for Rwanda*. Draft. October 2004.

4. Rwanda Environmental Management Authority (REMA) 2007. General Guidelines for Environmental Impact Assessment.

5. Rwanda Utilities Regulatory Authority (RURA). GUIDELINES FOR CONSTRUCTION OF PETROL STATIONS

6. Grayson, R (2006). How to conduct Public Consultation Guidance for EIA Consultancies. www.consultationinstitute.org.

7.